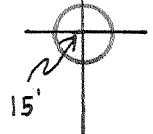


12/14/82

2000'

LATITUDE 39°10'

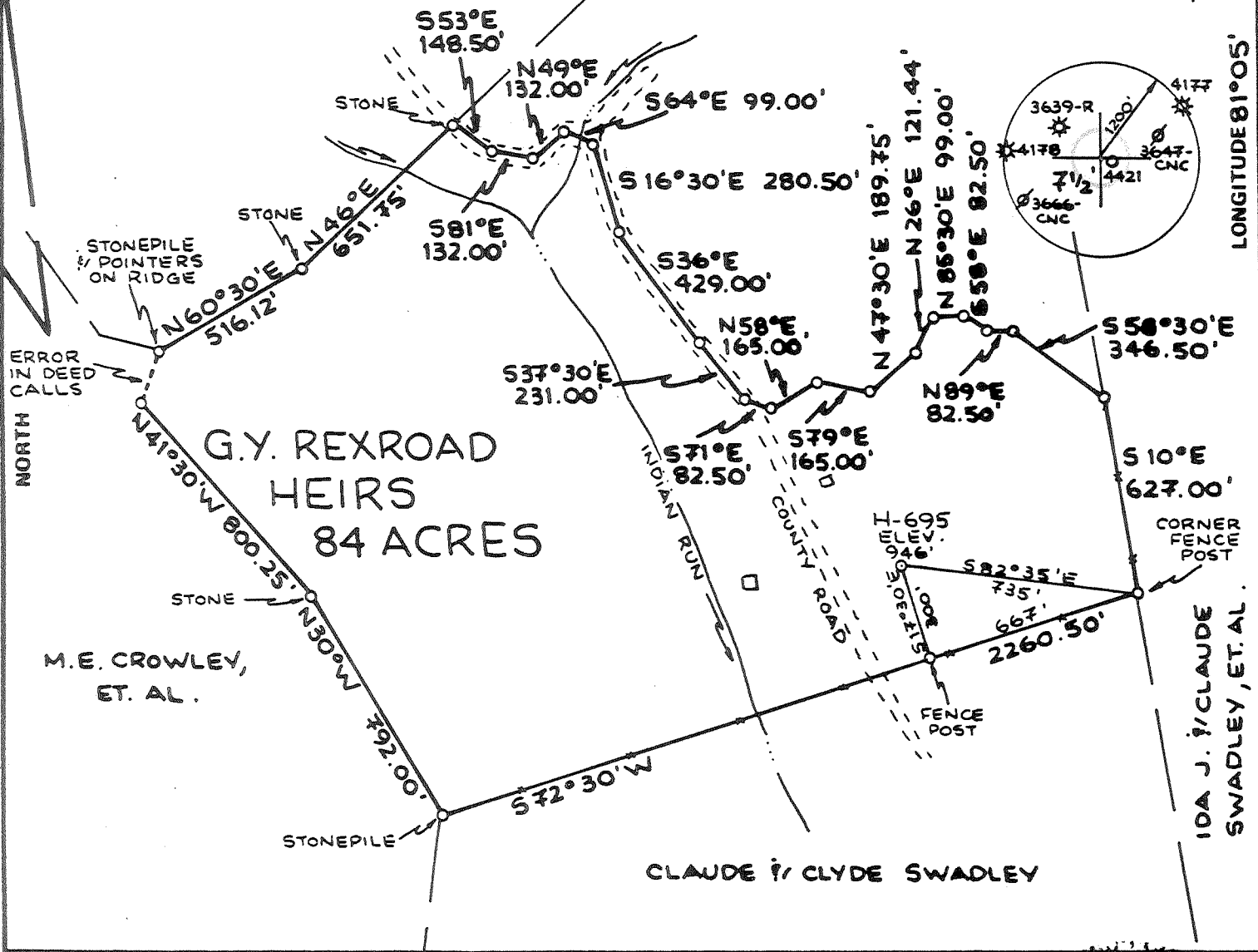
0.965
0.40w



LONGITUDE 81°05'

ORVAL D. SINNETT

CLAUDE & CLYDE SWADLEY



FILE NO. _____
 DRAWING NO. _____
 SCALE 1" = 500'
 MINIMUM DEGREE OF ACCURACY 1:200
 PROVEN SOURCE OF ELEVATION RD. INT. 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. 551



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



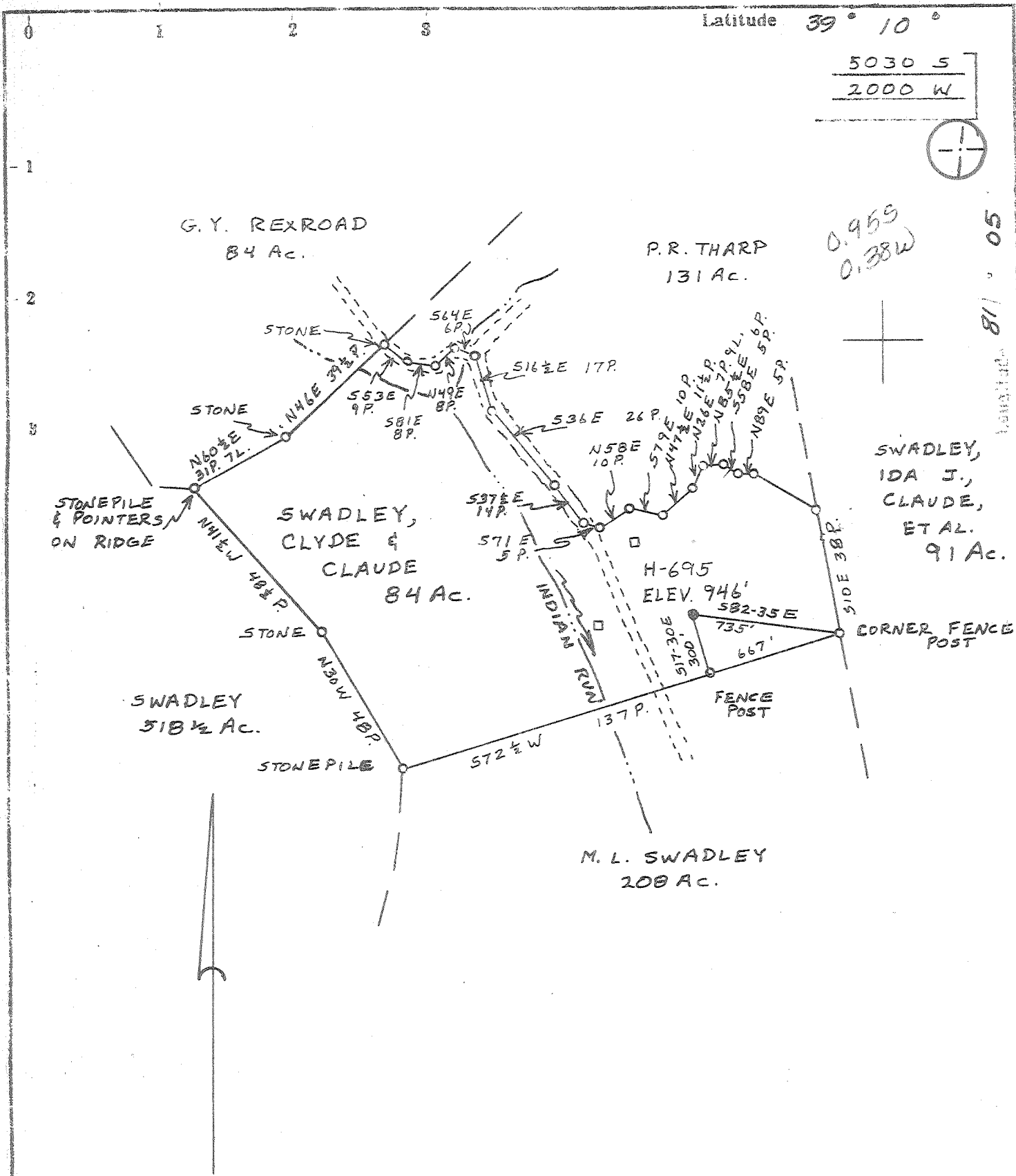
DATE 2 DECEMBER, 19 82
 OPERATOR'S WELL NO. H-695
 API WELL NO. _____
47 - 085 - 6087
 STATE COUNTY PERMIT

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 946' WATER SHED INDIAN RUN
 DISTRICT MURPHY COUNTY RITCHIE
 QUADRANGLE HARRISVILLE 7 1/2' QUAD. 7 15'
 SURFACE OWNER CLYDE AND CLAUDE SWADLEY ACREAGE 84
 OIL & GAS ROYALTY OWNER G.Y. REXROAD HEIRS LEASE ACREAGE 84
 LEASE NO. _____
 PROPOSED WORK: DRILL CONVERT _____ DRILL DEEPER _____ REDRILL _____ FRACTURE OR STIMULATE _____ PLUG OFF OLD FORMATION _____ PERFORATE NEW FORMATION _____ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _____

PLUG AND ABANDON _____ CLEAN OUT AND REPLUG _____
 TARGET FORMATION DEVONIAN SHALE ESTIMATED DEPTH 5000'
 WELL OPERATOR HAUGHT, INC. DESIGNATED AGENT WARREN HAUGHT
 ADDRESS SMITHVILLE, W.VA. 26138 ADDRESS SMITHVILLE, W.VA. 26138

DEC 20 1982



- Fracture.....
- Redrill.....
- New Location
- Drill Deeper
- Abandonment

Source of Elevation ROAD INTERSECTION ELEV. 861'

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 6 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

Farm SWADLEY

Tract _____ Acres 84 Lease No. _____

Well (Farm) No. H-695 Serial No. _____

Elevation (Spirit Level) 946'

Quadrangle HARRISVILLE, W.VA. 15 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 5 DEC. 1978 Scale 1" = 40 P.

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

WELL LOCATION MAP

WAS: 47-085-4217

FILE NO. 47-085-4217

NW: 47-085-4421 Now 6087

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 on border line of original tracing.

JAN 25 1979

RECEIVED



IV-35
(Rev 8-81)

FEB 2 - 1983

OIL AND GAS DIVISION
WV DEPARTMENT OF MINES
State of West Virginia
Department of Mines
Oil and Gas Division

Date December 29, 1982
Operator's
Well No. H-695
Farm G.Y. Rexroad
API No. 47-085-6087

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

WELL TYPE: Oil x / Gas x / Liquid Injection / Waste Disposal /
(If "Gas," Production / Underground Storage / Deep / Shallow x /)

LOCATION: Elevation: 846' ^{746 RFX} Watershed Indian Run
District: Murphy County Ritchie Quadrangle Harrisville, WV

COMPANY Haught, Inc.
ADDRESS Rt. 3, Box 14 Smithville, WV 26178
DESIGNATED AGENT Warren R. Haught
ADDRESS Smithville, WV 26178
SURFACE OWNER C & C Swadley
ADDRESS RFD 1 Harrisville, WV 26362
MINERAL RIGHTS OWNER G.Y. Rexroad
ADDRESS 899 VanBuren Clarksburg, WV 26301
OIL AND GAS INSPECTOR FOR THIS WORK Samuel N. Hersman ADDRESS Box 66, Smithville, WV
PERMIT ISSUED December 15, 1982
DRILLING COMMENCED 12/17/82
DRILLING COMPLETED 12/23/82
IF APPLICABLE: PLUGGING OF DRY HOLE ON CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED ON

Casing Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft.
Size 20-16 Cond.			
13-10"			
9 5/8			
8 5/8	1,053	1,053	175 sacks
7			
5 1/2			
4 1/2			
3			
2			
Liners used			

GEOLOGICAL TARGET FORMATION Devonian Shale Depth 2640-2656 feet
Depth of completed well 2746' feet Rotary x / Cable Tools
Water strata depth: Fresh feet; Salt feet
Coal seam depths: None Is coal being mined in the area? No

OPEN FLOW DATA

Producing formation Sandy Shale below Gordon Pay zone depth 2640-2656 feet
Gas: Initial open flow Mcf/d Oil: Initial open flow Bbl/d
Final open flow 1,119 Mcf/d Final open flow 0 Bbl/d
Time of open flow between initial and final tests hours
Static rock pressure 225 psig (surface measurement) after 24 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 Oil: 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

FEB 14 1983

(Continue on reverse side)

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

Natural Producing

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS
					Including indication of all fresh and salt water, coal, oil and gas
R.R.	Red	Soft	0	8	
Shale	Gray	Soft	8	40	
R.R.	Red	Soft	40	59	
Shale	Gray	Soft	59	80	
R.R.	Red	Soft	80	120	
Sand	White	Hard	120	127	
R.R.	Red	Soft	127	139	
Sand	White	Hard	139	144	
Shale	Gray	Soft	144	190	
Sand	White	Hard	190	223	
Shale	Gray	Soft	223	227	
R.R.	Red	Soft	227	295	
Sand	White	Hard	295	299	
R.R.	Red	Soft	299	357	
Shale	Gray	Soft	357	364	
R.R.	Red	Soft	364	371	
Shale	Gray	Soft	371	391	
Sand	White	Hard	391	405	
R.R.	Red	Soft	405	443	
Shale	Gray	Soft	443	452	
Sand	White	Hard	452	484	
Shale	Gray	Soft	484	490	
R.R.	Red	Soft	490	503	
Shale	Gray	Soft	503	506	
Sand	White	Hard	506	530	
Shale	Gray	Soft	530	535	
Sand	White	Hard	535	550	
Shale	Gray	Soft	550	561	
R.R.	Red	Soft	561	569	
Sand	White	Hard	569	597	
Shale	Gray	Soft	597	607	
R.R.	RED	Soft	607	618	
Shale	Gray	Soft	618	619	
Sand	White	Hard	619	634	
Shale	Gray	Soft	634	642	
R.R.	Red	Soft	642	662	
Shale	Gray	Soft	662	682	
Sand	White	Hard	682	695	
Shale	Gray	Soft	695	712	
Sand	White	Hard	712	765	

(Attach separate sheets as necessary)

Well Operator

By: Warren R. Haught

Date: 1/31/83

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 ... encountered in the drilling of a well."

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET
Shale	Gray	soft	765	820
R.R.	Red	Soft	820	896
Sand	White	Hard	896	913
Shale	Gray	Soft	913	1045
Sand	White	Hard	1015	1045
Shale	Gray	Soft	1045	1065
Sand	White	Hard	1065	1075
Shale	Gray	Soft	1075	1104
Sand	White	Hard	1104	1123
Shale	Gray	Soft	1123	1177
Shale	Gray	Soft	1177	1191
Shale	Gray	Soft	1191	1288
Sand	White	Hard	1288	1314
Shale	Gray	Soft	1314	1371
Sand	White	Hard	1371	1396
Shale	Gray	Soft	1396	1441
Sand	White	Hard	1441	1453
Shale	Gray	Soft	1453	1470
Sand	White	Hard	1470	1483
Shale	Gray	Soft	1483	1536
Sand	White	Hard	1536	1569
Shale	Gray	Soft	1569	1707
Sand	White	Hard	1707	1727
Shale	Gray	Soft	1727	1822
Sand	White	Hard	1822	1840
Lime <i>Big</i>	White	Soft	1840	1883
Sand <i>Enjū</i>	White	Hard	1883	2200
Slate	Gray	Soft	2200	2640
Sand <i>Gordon?</i>	White	Hard	2640	2656
Slate	Gray	Soft	2656	<u>2746</u>

Up Dev. undiff. @ T.D.

FEB 14 1983

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

(Formerly:
RIT-4217)

OIL AND GAS WELL PERMIT APPLICATION

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

LOCATION: Elevation: 946' 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 M. Grace Heck et als

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

Address Harrisville, WV 26362

Address _____
Name _____

ACREAGE 84

Address OCT 29 1979

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

COAL LESSEE WITH DECLARATION ON RECORD:
Name None

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

Address _____

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 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 § 22-4-3 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) 248-3092

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-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, 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	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	Deaths set
T casing									
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-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 § 22-4-3a 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.

[Signature]
Deputy Director - Coal & 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 § 22-4-22, 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 _____



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

RECEIVED
DEC 25 1978
OIL & GAS DIVISION
DEPT. OF MINES

Oil and Gas Division

OIL AND GAS WELL PERMIT APPLICATION

TO THE DEPARTMENT OF MINES,
Charleston, W. Va.

DATE December 7, 1978

Surface Owner Clyde & Claude Swadley
Address Harrisville, WV 26362
Mineral Owner M. Grace Heck et als
Address Harrisville, WV 26362
Coal Owner _____
Address _____
Coal Operator NONE
Address _____

Company Glenn L. Haught & Sons
Address SMithville, WV 26178
Farm Swadley Acres 84
Location (waters) Indian Run
Well No. H-695 Elevation 946'
District Murphy County Ritchie
Quadrangle Harrisville, WV 7 1/2'

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 5-2-79

INSPECTOR
TO BE NOTIFIED Kenneth Paul Goodnight
ADDRESS Smithville, WV 26178
PHONE 477-3660

[Signature]
Deputy Director - Oil & Gas Division

GENTLEMEN:

The undersigned well operator is entitled to drill upon the above named farm or tract of land for oil and gas, having fee title thereto, (or as the case may be) under grant or lease dated February 1 1978 by Ritchie Petroleum Corp made to Warren R. Haught and recorded on the 2nd day of Feb. 1978 in Ritchie Lease County, Book 124 Page 566

* XX NEW WELL _____ DRILL DEEPER _____ REDRILL _____ FRACTURE OR STIMULATE
_____ OIL AND GAS WELL ORIGINALLY DRILLED BEFORE JUNE 5, 1969.

The enclosed plat was prepared by a registered engineer or licensed land surveyor and all coal owners and/or operators have been notified as of the above date.

The above named coal owners and/or operator are hereby notified that any objection they wish to make, or are required to make by Section 3 of the Code, must be received by, or filed with the Department of Mines within ten (10) days. *

Copies of this notice and the enclosed plat were mailed by registered mail, or delivered to the above named coal operators or coal owners at their above shown respective address _____ day _____ before, or on the same day with the mailing or delivery of this copy to the Department of Mines at Charleston, West Virginia.

PLEASE SUBMIT COPIES OF ALL
GEOPHYSICAL LOGS DIRECTLY TO:

WEST VIRGINIA GEOLOGICAL AND
ECONOMIC SURVEY
P. O. BOX 879
MORGANTOWN, WEST VIRGINIA 26505
AC-304 - 292-6331

Very truly yours,
GLENN L. HAUGHT & SONS
(Sign Name) BY: [Signature]
Address Smithville, WV 26178
Street _____
of _____
Well Operator _____
City or Town _____
State _____

*SECTION 3 If no objections are filed or found by the Department of mines, within said period of ten days from the receipt of notice and plat by the department of mines, to said proposed location, the department shall forthwith issue to the well operator a permit reciting the filing of such plat, that no objections have been made by the coal operators or found thereto by the department and that the same is approved and the well operator authorized to proceed.

BLANKET BOND

47-085-4217 PERMIT NUMBER

Survey

THIS IS AN ESTIMATE ONLY
ACTUAL INFORMATION WILL BE SUBMITTED ON OG-10 UPON COMPLETION

PROPOSED WORK ORDER TO XX DRILL _____ DEEPEN _____ FRACTURE-STIMULATE _____
 DRILLING CONTRACTOR: (If Known) RESPONSIBLE AGENT:
 NAME Glenn L. Haught & Sons NAME Warren R. Haught
 ADDRESS Smithville, WV 26178 ADDRESS Smithville, WV 26178
 TELEPHONE 477-3333 TELEPHONE 477-3333
 ESTIMATED DEPTH OF COMPLETED WELL: 2150' ROTARY XX CABLE TOOLS _____
 PROPOSED GEOLOGICAL FORMATION: Big Injun
 TYPE OF WELL: OIL _____ GAS _____ COMB. XX STORAGE _____ DISPOSAL _____
 RECYCLING _____ WATER FLOOD _____ OTHER _____

TENTATIVE CASING PROGRAM:

CASING AND TUBING SIZE	USED FOR DRILLING	LEFT IN WELL	CEMENT LIFT UP OR SACKS - CUBIC FT.
20 - 16			
13 - 10			
9 - 5/8			
8 - 5/8	200'	200'	75 sacks
7			
5 1/2			
4 1/2		2150'	100 sacks
3			Perf. Top
2			Perf. Bottom
Liners			Perf. Top
			Perf. Bottom

APPROXIMATE FRESH WATER DEPTHS 50 FEET SALT WATER _____ FEET
 APPROXIMATE COAL DEPTHS None
 IS COAL BEING MINED IN THE AREA? no BY WHOM? _____

TO DRILL:

SUBMIT FIVE (5) COPIES OF OG - 1, \$100.00 PERMIT FEE, PERFORMANCE BOND AND PERMANENT COPY OF PLAT.

TO DRILL DEEPER OR REDRILL:

SUBMIT FIVE (5) COPIES OF OG - 1, SHOWING ORIGINAL PERMIT NUMBER AND PERFORMANCE BOND. ON WELLS DRILLED PRIOR TO 1929, A PERMANENT COPY OF THE PLAT AND THE ORIGINAL WELL RECORD MUST ALSO BE SUBMITTED.

TO FRACTURE - STIMULATE:

OIL AND/OR GAS WELL ORIGINALLY DRILLED BEFORE JUNE 5, 1929, FIVE (5) COPIES OG - 1, PERFORMANCE BOND, PERMANENT PLAT AND ORIGINAL WELL RECORD.

OIL AND/OR GAS WELL ORIGINALLY DRILLED ON AND/OR AFTER JUNE 5, 1929, FIVE COPIES OG - 1, SHOWING ORIGINAL PERMIT NUMBER, AND PERFORMANCE BOND.

Required forms must be filed within ninety (90) days of completion for bond release. Inspector to be notified twenty-four (24) hours in advance.

The following waiver must be completed by the coal operator if the permit is to be issued within ten days of receipt thereof.

WAIVER: I the undersigned, Agent for _____ Coal Company, Owner or Operator of the coal under this lease have examined and place on our mine maps this proposed well location.

We the _____ Coal Company have no objections to said well being drilled at this location, providing operator has complied with all rules and regulations in Articles 4, 5, and 7, Chapter 22 of the West Virginia Code.

For Coal Company

Official Title



1) Date: December 9, 19 82
 2) Operator's Well No. H-695
 3) API Well No. 47 085 6007
 State County Permit

DRILLING CONTRACTOR:

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

OIL AND GAS WELL PERMIT APPLICATION

- 4) WELL TYPE: A Oil / Gas
 B (If "Gas", Production / Underground storage / Deep / Shallow)
- 5) LOCATION: Elevation: 846' Watershed: Indian Run
 District: Murphy County: Ritchie Quadrangle: Harrisville, WV
- 6) WELL OPERATOR Haught, Inc. 11) DESIGNATED AGENT Warren R. Haught
 Address 4424 Emerson Avenue Address Rt. 3 Box 14
Parkersburg, WV 26104 Smithville, WV 26178
- 7) OIL & GAS ROYALTY OWNER G.Y. Rexroad, Hrs. 12) COAL OPERATOR None
 Address c/o Graca N. Beck Address
899 VanBuren Clarksburg, WV 26301
- 8) SURFACE OWNER Clyde & Claude Swadley 13) COAL OWNER(S) WITH DECLARATION ON RECORD:
 Address RFD 1 Name
Harrisville, WV 26362 Address
 Acreage 84 Name
 Address Address
- 9) FIELD SALE (IF MADE) TO: Cabot Corp. 14) COAL LESSEE WITH DECLARATION ON RECORD:
 Address Charleston, WV 25325 Name None
 Address Address
- 10) OIL & GAS INSPECTOR TO BE NOTIFIED Samuel N. Herman
 Name Samuel N. Herman Address
 Address P.O. Box 66 Address
Smithville, WV 26178
- 15) PROPOSED WORK: Drill / Drill deeper / Redrill / Fracture or stimulate
 Plug off old formation / Perforate new formation
 Other physical change in well (specify)
- 16) GEOLOGICAL TARGET FORMATION, Devonian Shale
 17) Estimated depth of completed well, 5000 feet
 18) Approximate water strata depths: Fresh, feet; salt, feet.
 19) Approximate coal seam depths: None Is coal being mined in the area? Yes / No

20) 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	<u>8-5/8</u>	<u>K-55</u>	<u>20#</u>	<input checked="" type="checkbox"/>		<u>1046'</u>	<u>1046'</u>	<u>Cement to Surface</u>	Sizes
Coal									Depths set
Intermediate									Perforations:
Production	<u>4 1/2"</u>	<u>J-55</u>	<u>10.5#</u>	<input checked="" type="checkbox"/>			<u>5000'</u>	<u>500 sacks</u>	Top <u> </u> Bottom <u> </u>
Tubing									
Liners									

21) EXTRACTION RIGHTS
 Check and provide one of the following:
 Included is the lease or leases or other continuing contract or contracts by which I hold the right to extract oil or gas.
 The requirement of Code 22-4-1-(c) (1) through (4). (See reverse side for specifics.)

22) ROYALTY PROVISIONS
 Is the right to extract, produce or market the oil or gas based upon a lease or other continuing contract or contracts providing for flat well royalty or any similar provision for compensation to the owner of the oil or gas in place which is not inherently related to the volume of oil or gas so extracted, produced or marketed? Yes No
 If the answer above is No, nothing additional is needed. If the answer is Yes, you may use Affidavit Form IV-60.

23) Required Copies (See reverse side.)
 24) 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.

Notary: Signed: Warren R. Haught
 My Commission Expires April 10, 1992 Its:

OFFICE USE ONLY

Permit number 47-085-6007 **DRILLING PERMIT** Date December 15, 19 82

This permit covering the well operator and well location shown below is evidence of permission granted to drill in accordance with the pertinent legal requirements subject to the conditions contained herein and on the reverse hereof. **Notification must be given to the District Oil and Gas Inspector. (Refer to No. 10) Prior to the construction of roads, locations and pits for any permitted work.** In addition, the well operator or his contractor shall notify the proper district oil and gas inspector 24 hours before actual permitted work has commenced.)

Permit expires August 15, 1983 unless drilling is commenced prior to that date and prosecuted with due diligence.
 Bond: Agent: Plat: Casing: Fee: 3019
 Administrator, Office of Oil and Gas