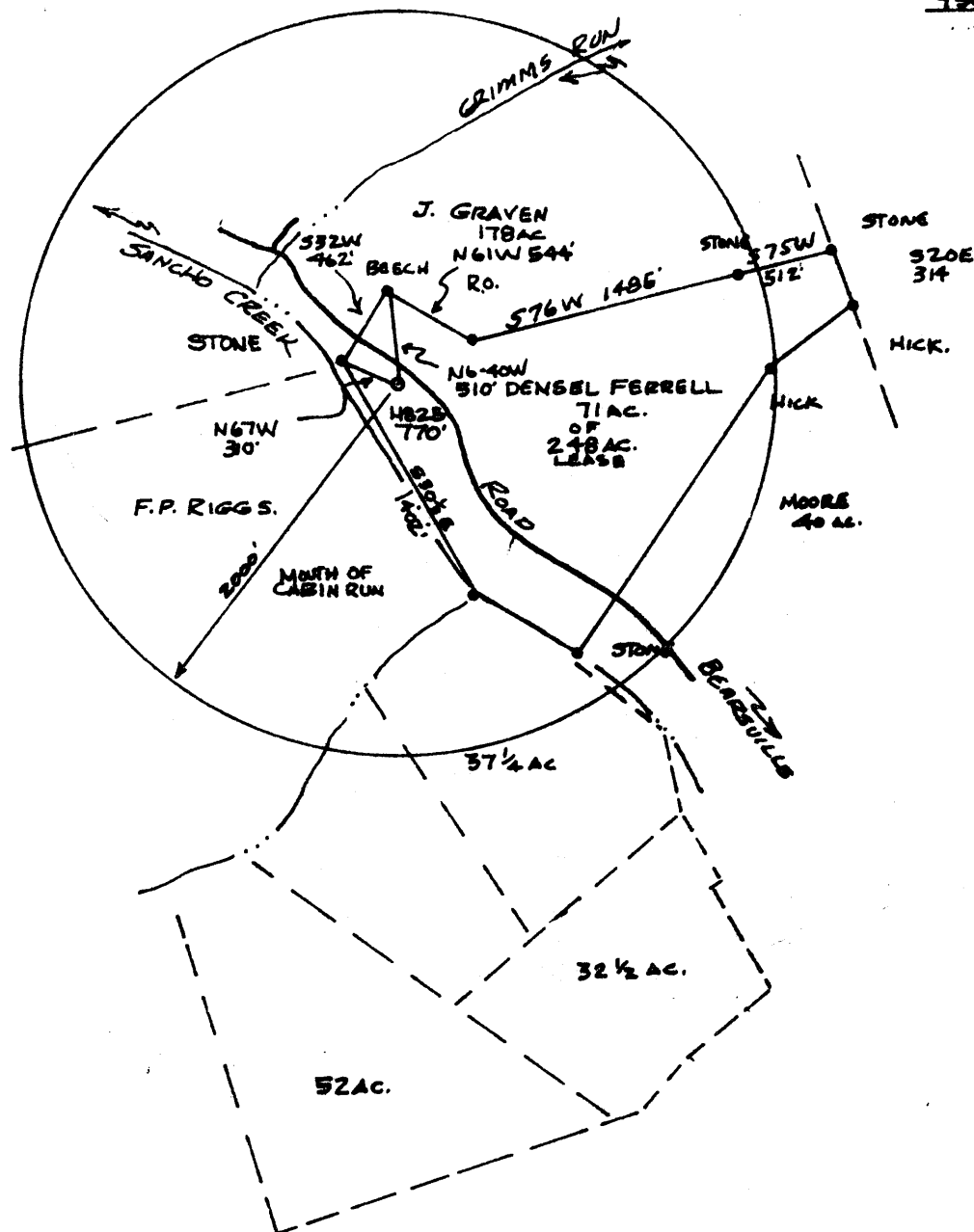


1800 S
930 W

7 1/2'

15'
80° 55'



FILE NO. _____
DRAWING NO. _____
SCALE 1"=1000'
MINIMUM DEGREE OF ACCURACY 1:200
PROVEN SOURCE OF ELEVATION ROAD INT GRIMMS RUN 769'

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

PLACE SEAL HERE

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



DATE 17 AUGUST, 1979
OPERATOR'S WELL NO H-825
API WELL NO. 47-095-0728
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 770' WATER SHED SANGHO CREEK
DISTRICT CENTERVILLE COUNTY TYLER
QUADRANGLE MIDDLEBOURNE (WEST UNION 15' WC
SURFACE OWNER DENSEL FERRELL ACREAGE 71
OIL & GAS ROYALTY OWNER SAME LEASE NO. _____ LEASE ACREAGE 248
PROPOSED WORK: DRILL CONVERT _____ DRILL DEEPER _____ REDRILL _____ FRACTURE OR STIMULATE _____ PLUS OFF OLD FORMATION _____ PERFORATE NEW FORMATION _____ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _____
PLUG AND ABANDON _____ CLEAN OUT AND REPLUS _____
TARGET FORMATION GORDON ESTIMATED DEPTH 3100'
WELL OPERATOR GLENN L. HAUGHT'SONS DESIGNATED AGENT
ADDRESS SMITHVILLE, W.VA. ADDRESS WARREN R. HAUGHT
26378 SAME

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

Date December 6, 1979

FORM IV-35
(Obverse)

Operator's
Well No. H-825

[08-78]

WELL OPERATOR'S REPORT 43
OF

API Well No. 47-095-0728
State County P

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: 770' Watershed: Sancho Creek
District: Centerville County: Tyler Quadrangle: Middlebourne, WV 7 1/2'

WELL OPERATOR Glenn L. Haught & Sons D. Ferrell H-825
Address Smithville, WV 26178
DESIGNATED AGENT Warren R. Haught
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 August 21, 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 Phil Tracey
Address Middlebourne, WV 26149

GEOLOGICAL TARGET FORMATION: Devonian Shale Depth 3200 to 5133 feet

Depth of completed well, 5133' 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 August 23, 1979, and completed September 1, 1979

CASING AND TUBING PROGRAM

CASING OR TUBING TYPE	SPECIFICATIONS				FOOTAGE INTERVALS		CEMENT FILL-UP OR SACKS (Cubic feet)	REMARKS	
	Size	Grade	Weight per ft	New	Used	For drilling			Left in well
Conductor	16"				X	35'	35'	15 sacks	Kinds
Fresh water	10 3/4				X	328'	328'	150 sacks	
Coal									Sizes
Intermediate									
Production Tubing	4 1/2	J-55	10.5#	X			5061'	570 sacks	Depth set
Liners									Perforations:
									Top Bottom
									3219 4741

OPEN FLOW DATA

OIL & GAS DIVISION
DEPT. OF MINES

Producing formation Devonian Shale Pay zone depth 3200 to 5133 feet

Gas: Initial open flow, _____ Mcf/d Oil: Initial open flow, _____ Bbl/d

Final open flow, 492 Mcf/d Final open flow, _____ Bbl/d

Time of open flow between initial and final tests, 8 hours

Static rock pressure, 1375 psig (surface measurement) after 12 hours shut in.

[If applicable due to multiple completion--]

Second producing formation _____ Pay zone depth _____

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

[08-78]

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

Hydrafraced by Halliburton 9-13-79 -- 1500 Gal. Acid -- 1491 Bbls. Water
28,500 Lbs. 80/100 Mesh Sand -- 58,500 Lbs. 20/40 Mesh Sand.

Perforations; 14--4563--4741
15--3676--4134
6--3219--3247
7--4352--4382

WELL LOG

FORMATION	Color	Hard or Soft	43 Top Feet	Bottom Feet	Remarks Including indication of all free and salt water, coal, oil and gas
Shale & Sand			0	460	
Sand			460	492	
Red Rock			492	500	
Sand			500	524	
Shale			524	573	
Sand & Shale			573	714	
Red Rock			714	721	
Sand			721	850	
Red Rock			850	900	
Shale			900	1050	
Red Rock			1050	1055	
Shale			1055	1130	
Sand			1130	1200	
Shale			1200	1250	
Sand			1250	1265	
Shale			1265	1275	
Sand			1275	1354	
Shale			1354	1384	
Sand			1384	1410	
Shale			1410	1468	
Sand			1468	1481	
Shale			1481	1567	
Sand			1567	1675	
Lime			1675	1770	
Sand			1770	1900	
Shale			1900	2000	
Shale			2000	2120	
Sand & Shale			2120	2190	
Shale			2190	2229	
Sand			2229	2268	
Shale			2268	2311	
Sand & Shale			2311	2579	
Red Rock			2579	2585	
Shale & Sand			2585	3050	
Sand			3050	3120	
Sand & Shale			3120	3220	
Sand			3220	3264	
Shale			3264	3311	
Sand			3311	3376	
Shale			3376	3415	
Sand			3415	3481	
Shale			3481	3558	
Sand & Shale			3558	3890	
Shale			3890	3968	
Sand			3968	4051	
Shale			4051	4350	
Sand			4350	4390	
Shale			4390	4800	
Sand & Shale			4800	4975	
Sand DEV BENSON			4975	4980	
Shale DEV SH.			4980	5133	T. D.

5/33
3120
2013 exp.

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 *Walter 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: 770' Watershed: Sancho Creek
District: Centerville County: Tyler Quadrangle Middlebourne

WELL OPERATOR Glenn L. Haught & Sons DESIGNATED AGENT Warren R. Haught
Address Smithville, WV 26178 Address Smithville, WV 26178

OIL & GAS ROYALTY OWNER Densel Ferrell COAL OPERATOR None
Address R. F. D Address _____
Middlebourne, WV

Acreage 71 COAL OWNER(S) WITH DECLARATION ON RECORD:
Name _____
Address _____
AUG 21 1979

SURFACE OWNER Densel Ferrell Name _____
Address Same Address _____

Acreage 248 Name _____
FIELD SALE (IF MADE) TO: Address OIL & GAS DIVISION
Name _____ DEPT. OF MINES
Address _____

OIL & GAS INSPECTOR TO BE NOTIFIED
Name Phil Tracey Name _____
Address Middlebourn, W.Va. 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 August 20, 1977, to the undersigned well operator from Densel Ferrell and Ester Ferrell
[If said deed, lease, or other contract has been recorded:]
Recorded on Aug. 26, 1977, in the office of the Clerk of the County Commission of Tyler County, West Virginia, in Deed Book 213 at page 358. 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) 348-3092

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. Haight & Sons
Address Smithville, WV 26178

GEOLOGICAL TARGET FORMATION, Gordon Sands

Estimated depth of completed well, 3100 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		775	775	175 Sacks
Coal								Sizes
Intermediate								
Production	4 1/2	J-55	10.5	X			3100	100 Sacks
Tubing								Deaths set
Liners								Perforations:
								Top Bottom

NOTE: Regulation 7.09 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 4-21-80.

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 § 22-4-20, 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: , 1980

By
Its