

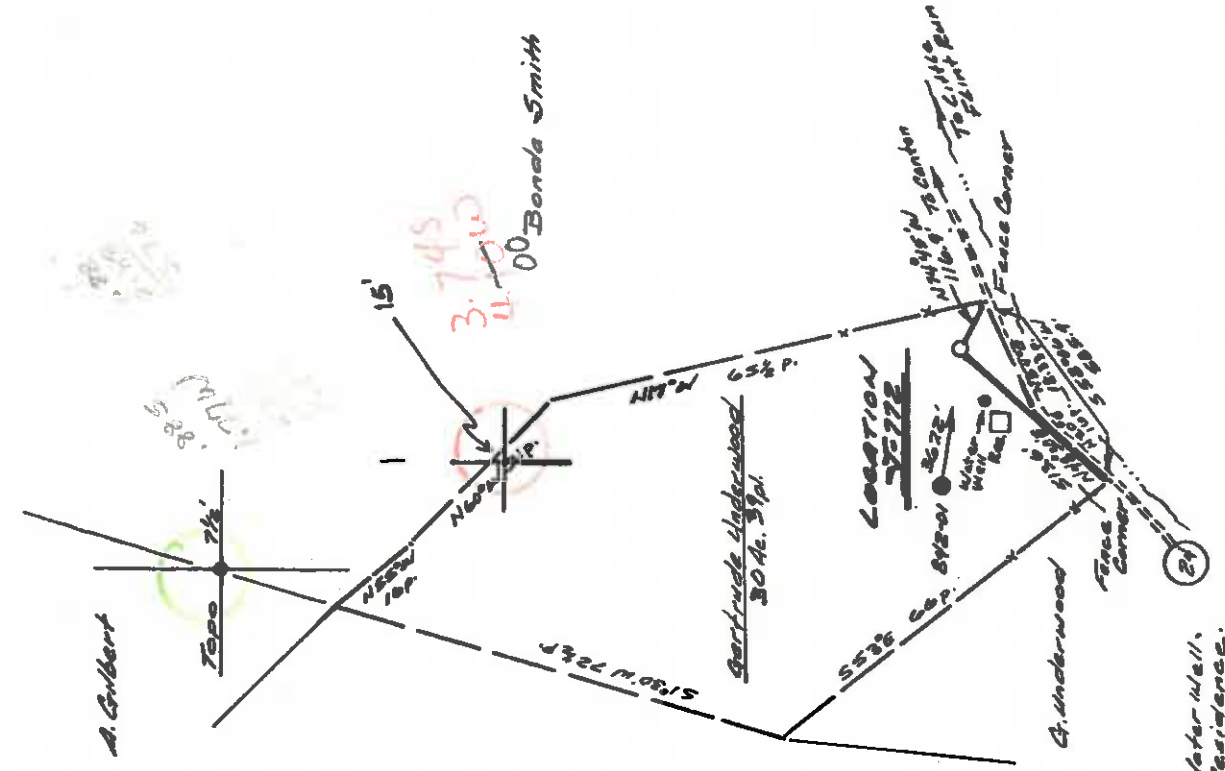
4-14-83

Plot

9340'

LATITUDE 39° 22' 30" 39° 25' 00"

LONGITUDE 80° 42' 30" 80° 40' 00"



LOCATION: 144' from Water Well, 155' from Residence.

FILE NO. 306.01
 DRAWING NO. 83-44
 SCALE 1" = 500'
 MINIMUM DEGREE OF ACCURACY 1/4" 200'
 PROVEN SOURCE OF ELEVATION BM-850
S.E. of location.

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) Rayford L. Ottaway
 R.P.E. Buckhannon, W.Va. L.I.S. 555

PLACE SEAL HERE

STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION



DATE 14 March, 19 83
 OPERATOR'S WELL NO. VF-772
 API WELL NO. 47-017-3213

STATE 47 COUNTY 017 PERMIT NO. 3213

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL

(IF "GAS") PRODUCTION STORAGE DEEP SHALLOW

LOCATION: ELEVATION 815' WATER SHED Little Flat Run

DISTRICT Great COUNTY Dodderidge

QUADRANGLE Southburg ACRES 30 Ac. 39 pl.

SURFACE OWNER Gertrude Underwood LEASE ACRES 30 Ac. 39 pl.

OIL & GAS ROYALTY OWNER Gertrude Underwood LEASE NO. JJ-1456

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 Benson ESTIMATED DEPTH 5000'

WELL OPERATOR W. J. FARRIS, INC. DESIGNATED AGENT Bono

ADDRESS P.O. Box 48 ADDRESS P.O. Box 48

Buckhannon, W.V. 26201 ADDRESS Buckhannon, W.V. 26201

6-6 Swiger (Flint Run) (97)
APR 25 1983

JUN 27 1983

JUN 10 1983

OIL & GAS DIVISION
DEPT. OF MINES
STATE OF WEST VIRGINIA
BUREAU OF MINES, OIL AND GAS DIVISION
WELL OPERATOR'S REPORT
OF
DRAINING, FRACURING AND/OR STIMULATING, OR PHYSICAL CHANGE

WELL TYPE: Gas / Gas / Liquid Injection / Waste Disposal
(If "Gas", Production X / Underground storage / Deep / Shallow X /)
LOCATION: Elevation: 815 / Watershed: Little Flint Run
District: Grant / County: Doddridge / Quadrangle: Smithsburg
WELL OPERATOR: J&J Enterprises, Inc. / DESIGNATED AGENT: Richard Reddecliff
Address: P.O. Box 48 / Address: P.O. Box 48
Buckhannon, WV 26201 / Buckhannon, WV 26201

PERMITTED WORK: Drill X / Convert / Drill deeper / Redrill / Fracture or stimulate X
Plug off old formation / Perforate new formation
Other physical change in well (specify)

PERMIT ISSUED ON 4/15, 19 83 OIL & GAS INSPECTOR FOR THIS WORK:
(IF APPLICABLE: PLUGGING OF DRY WELLS OR CONTINUOUS PROGRESSION FROM DRILLING OR REMORING. VERBAL PERMISSION OBTAINED) Name Stephen Casey
Address Rt. # 2, Box 232-D
Jane Lew, WV 26378
GEOLOGICAL TARGET FORMATION: Benson Depth 4878-4882 feet
Depth of completed well, 5337 feet Rotary X / Cable Tools
Water strata depth: Fresh 240-925 feet; salt, None feet.
Coal seam depths: 527-32 Is coal being mined in the area? NO
Work was commenced 5/2, 19 83, and completed 5/8, 19 83

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			
Conductor	11 3/4	H-40 42 X	80	5 sks.	Heads
Fresh water	8 5/8	ERW 23 X	1010.60	300 sks.	
Coal	8 5/8	ERW 23 X	1010.60	300 sks.	Sizes
Intermediate					
Production	4 1/2	J-55 10.5 X	4940.65	175 sks.	Deaths set
Tubing					
Liners					Perforations:
					Cap
					Bottom
					4878 4882

OPEN FLOW DATA
Producing formation Benson Pay zone depth 4878-82
Gas: Initial open flow, Mcf/d Oil: Initial open flow, bbl/d
Final open flow, 358 Mcf/d Final open flow, bbl/d
Time of open flow between initial and final tests, 4 hours
Static rock pressure, 1700 psig (surface measurement) after 96 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

Bottom Hole Pressure static rock pressure, 1 psig (surface measurement) after hours shut in
Pf=PweXGLS
t=60+(0.0075 x 4941) + 459.7=557 X=53.35 x 557 =29703 =0.0000337 Pf=1700 x 2.72 (0.0000337)
(0.653) (4880) (0.9) =1700 x 2.72 0.096 = 1700 x 1.10
Pf= 1873 psi

JUN 27 1983

DETAILS OF PERFORATED INTERVALS, FRACCRETIONS OR SEPARATIONS, PHYSICAL CHANGE, ETC.

Benson: Perforations: 4878-82 (8 holes)
 Fracturing: 10,000 lbs. 80/100 sand: 46,000 lbs. 20/40 sand: 500 gal. Acid
 645 Bbls. Fluid.

SEE 105

EXPLANATION	Color	Hard as Soft	Top Feet	Bottom Feet	Remarks including description of all screens and sand sizes, etc.
Top Soil			0	15	1" stream @ 8'
Shale & Sand			15	85	
Red rock, sand & shale			85	150	4" stream @ 80'
Sand, red rock & shale			150	225	3/4" stream @ 108'
Sand & shale			225	340	
Sand & red rock			340	397	1" Stream @ 240'
Sand & shale			397	527	
Coal			527	532	1 1/2" to 2" stream @ 925'
Sand & shale			532	606	
Sand, shale & red rock			606	935	Gas ck. @ 1948 No show
Sand & shale			606	1073	
Sand & shale			935	1563	
Shale & red rock			1073	1760	Gas ck @ 2942 10/10-1/2" w/water 5,953 cu.ft.
Big Lime			1760	1888	
Big Injun			1888	1920	
Sand & shale			1920	2640	Gas ck. @ 4956 26/10-1/2" w/water 9,510 cu.ft.
Sand & shale			2640	4878	
Sand & shale			4878	4882	
Benson			4882	5100	
Sand & shale			5100	5120	
Brown sand & shale			5100	5337	
Sand & shale			5120		

See expansion @ T.D.

(Attach separate sheets as complete as necessary)

J & J Enterprises, Inc.
 Well Operator
 By Robert Dahlin
 Geologist

NOTE: Regulation 2.32(f) provides as follows:
 "The term 'log' or 'well log' shall mean a systematic description of the geologic section of well formations, including logs, measurements, and illustrations of a well."



1) Date: April 7, 19 83
2) Operator's Well No. J-772
3) API Well No. 47 State MD County Permit

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES, OIL AND GAS DIVISION
OIL AND GAS WELL PERMIT APPLICATION

DRILLING CONTRACTOR:

S.W. Jack Drilling Co.
Box 46
Waynesville, N.C. 28586

4) WELL TYPE: A Oil Gas
B (If "Gas", Production Underground storage Deep Shallow
5) LOCATION: Elevation: 815 Watershed: Flint
District: Grant County: Washington Quadrangle: Washington

6) WELL OPERATOR J&J Enterprises, Inc.
Address P.O. Box 46
Waynesville, N.C. 28586

7) OIL & GAS ROYALTY OWNER Centrade Underwood
Address Centrade Delivery Rt. 2
West Union, W. Va. 25456

8) SURFACE OWNER Centrade Underwood
Address Centrade Delivery Rt. 2
West Union, W. Va. 25456
Acreage 30

9) FIELD SALE (IF MADE) TO: Centrade
Address Centrade
Acreage 30

10) OIL & GAS INSPECTOR TO BE NOTIFIED
Name William C. Cramer
Address 37 S. S. Ave. S.E.
June 2, W. Va. 25378

11) DESIGNATED AGENT
Name William C. Cramer
Address 37 S. S. Ave. S.E.
June 2, W. Va. 25378

12) COAL OPERATOR
Name William C. Cramer
Address 37 S. S. Ave. S.E.
June 2, W. Va. 25378

13) COAL OWNER(S) WITH DECLARATION ON RECORD:
Name William C. Cramer
Address 37 S. S. Ave. S.E.
June 2, W. Va. 25378

14) COAL LESSEE WITH DECLARATION ON RECORD:
Name William C. Cramer
Address 37 S. S. Ave. S.E.
June 2, W. Va. 25378

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, Keokuk
17) Estimated depth of completed well, 5000 feet
18) Approximate water strata depths: Fresh, 1000 feet; salt, 2000 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		PACKERS		
	Size	Grade	Weight per ft.	New	Used	Left in well	Cement fill-up or sacks (Cubic feet)	Perforations: Top Bottom
Conductor								
Fresh water								
Coal								
Intermediate								
Production								
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 lease 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: _____
My Commission Expires _____ Its: _____

Permit number _____ Date _____
OFFICE USE ONLY
DRILLING PERMIT

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 December 19, 1983 unless drilling is commenced prior to that date and prosecuted with due diligence.
Bond: 1500 Agent: Jack Plat: 74 Casing Fee 1000 Fee 1000

NOTE: Keep one copy of this permit posted at the drilling location.
Administrator, Office of Oil and Gas

Line Item Explanation

- 1) Date of Application
- 2) Your well name and number
- 3) To be filled out by office of oil & gas
- 4A) "Oil" means natural crude oil or petroleum and other hydrocarbons, regardless of gravity, which are produced at the well in liquid form by ordinary production methods and which are not the result of condensation of gas after it leaves underground reservoirs; "Gas" means all natural gas and all other fluid hydrocarbons not defined as oil.
- 4B) "Shallow well" means any well drilled and completed in a formation above the top of the uppermost member of the "Onondaga Group" or a depth less than six thousand feet, whichever is shallower.
 "Deep well" means any well drilled and completed in a formation at or below the top of the uppermost member of the "Onondaga Group" or at a depth less than six thousand feet, whatever is shallower.
- 5) Where well is located
- 6) Before a permit can be issued in a corporation, company partnership, or fictitious name, the name must be registered with the Secretary of State Office
- 7) Use separate sheet if necessary
- 8) Present surface owner at time application is filed.
- 9) Optional
- 11) See Reg. 7.01 relating to code §22-4-1k
- 12) "Coal Operator" means any persons, firm, partnership, partnership association or corporation that proposes to or does operate a coal mine. See Note 24
- 13 & 14) As per §22-4-20; See Note 24
- 15) Work that will be attempted—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.
- 16) Anticipated formation for which well will be completed
- 17) Self explanatory
- 18) Depth to deepest freshwater, and shallowest salt water, taken from nearby wells corrected for differences in elevation
- 19) All coal seam depths
- 20) Proposed casing program and cementing refer to Code 22-4-5, 22-4-6, 22-4-7, 22-4-8, 22-4-8a Reg 9.01, 15.01, 15.02, 15.03, 15.04, 25.01, 25.02, 25.03, 25.04
- 21) Code 22-4-11(c) - In lieu of filing the lease or leases or other continuing contract or contracts, the applicant for a permit described herein may file the following:
 - (1) A brief description of the tract of land including the district and county wherein the tract is located;
 - (2) The identification of all parties to all leases or other continuing contractual agreements by which the right to extract, produce or market the oil or gas is claimed;
 - (3) The book and page number wherein each such lease or contract by which the right to extract, produce or market the oil or gas is recorded;
 - (4) A brief description of the royalty provisions of each such lease or contract.
- 22) Code 22-4-11(d) and 22-4-11(e).
- 23) 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 §22-4-8a from the owner of any water well or dwelling within 200 feet of the proposed well.
- 24) **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.**

.....

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.

WAIVER

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 _____