

LATITUDE 38°40'00"

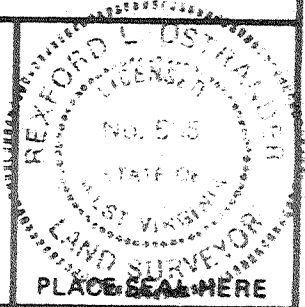
LONGITUDE 80°12'30"

38 39 30
80 14 20

Refer to Deed Book 305/606 for boundary description.

FILE NO. 346.01
 DRAWING NO. 80-8
 SCALE 1"=4000'
 MINIMUM DEGREE OF ACCURACY 1 in 2500
 PROVEN SOURCE OF ELEVATION BM-2643
1200' N.E. of the 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) Rexford L. Ostrander
 R.P.E. _____ L.L.S. 555



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



DATE 18 October, 19 80
 OPERATOR'S WELL NO. J-401
 API WELL NO. _____
47 - 083 - 0386
 STATE COUNTY PERMIT

STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION

WELL TYPE: OIL ___ GAS xx LIQUID INJECTION ___ WASTE DISPOSAL ___
 (IF "GAS,") PRODUCTION xx STORAGE ___ DEEP ___ SHALLOW ___
 LOCATION: ELEVATION 2785' WATER SHED Marsh Fork
 DISTRICT Middle Fork COUNTY Randolph
 QUADRANGLE PICKENS WC
 SURFACE OWNER Russell G. and Doris K. Haddix ACREAGE 100
 OIL & GAS ROYALTY OWNER Russell G. and Doris K. Haddix LEASE ACREAGE 100
 LEASE NO. _____
 PROPOSED WORK: DRILL xx 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 _____ ESTIMATED DEPTH _____
 WELL OPERATOR TEV Enterprises, Inc. DESIGNATED AGENT H.L. Barnett
 ADDRESS P.O. Box 48 ADDRESS P.O. Box 48
Buckhannon, W. Va. 26201 Buckhannon, W. Va. 26201

DEC 19 1980

DEEP WELL 2-2 PICKENS Alexander 368356-0

[08-78]

OIL AND GAS WELL PERMIT APPLICATION

Operator's Well No. J-401

API Well No. 47-083 0386
State County Pickens

WELL TYPE: Oil ___ / Gas X /
(If "Gas", Production X / Underground storage ___ / Deep X / Shallow ___ /)
LOCATION: Elevation: 2785 Watershed: Marsh Fork
District: Middle Fork County: Randolph Quadrangle: Pickens

WELL OPERATOR J&J Enterprises Inc
Address P.O. Box 48
Buckhannon W.V 26201

DESIGNATED AGENT H.L. Barnett
Address P.O. Box 48
Buckhannon W.V. 26201

OIL & GAS ROYALTY OWNER Russell & Doris Haddix
Address Rt. 2 Box 109
Buckhannon W.V. 26201

COAL OPERATOR None
Address

SURFACE OWNER Russel & Doris Haddix
Address Rt. 2 Box 109
Buckhannon W.V. 26201
Acreage 100

COAL OWNER(S) WITH DECLARATION ON RECORD:
Name Edwin Ramsey
Address C/O George Ramsey
6 McCreedy Ave.
Wheeling, WV 26003

FIELD SALE (IF MADE) TO:
Name Unknown
Address

COAL LESSEE WITH DECLARATION ON RECORD:
Name None
Address

OIL & GAS INSPECTOR TO BE NOTIFIED
Name Robert Stewart
Address P.O. Box 345
Jane Lew W.V 26378

RECEIVED
NOV 6 1980
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 X / other contract ___ / dated Aug. 20, 1980, to the undersigned well operator from Russell & Doris Haddix
[If said deed, lease, or other contract has been recorded:]

Recorded on ___, 19 ___, in the office of the Clerk of the County Commission of Randolph County, West Virginia, in Oil & Gas Lease Book 332 at page 429. A permit is requested as follows:

PROPOSED WORK: Drill X / Drill deeper ___ / Redrill ___ / Fracture or stimulate X /
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 unit 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

BLANKET BOND

J&J Enterprises Inc.
Well Operator

By Peter Battles
Peter Battles

PROPOSED WORK ORDER

THIS IS AN ESTIMATE ONLY: ACTUAL INFORMATION MUST BE SUBMITTED ON FORM IV-35 UPON COMPLETION

DRILLING CONTRACTOR (IF KNOWN) S.W. Jack Drilling Co.

Address P.O. Box 48

Buckhannon W.V. 26201

GEOLOGICAL TARGET FORMATION, Oriskany

Estimated depth of completed well, 8000 feet Rotary X / Cable tools /

Approximate water strata depths: Fresh, 50 feet; salt, 1200 feet.

Approximate coal seam depths: IS coal being mined in the area: Yes / No

CASING AND TUBING PROGRAM

Table with columns: CASING OR TUBING TYPE, SPECIFICATIONS (Size, Grade, Weight per ft, New, Used), FOOTAGE INTERVALS (For drilling, Left in well), CEMENT FILL-UP OR SACKS (Cubic feet), PACERS (Kinds, Sizes, Depths set, 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 § 22-4-8a 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.

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 7-19-81

J. E. Muzey 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 X / 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: November 4, 1980

Leon W. Brown

By Edw. R. ... Landowner (coal)

RECEIVED

Date: March 31, 1982

Operator's Well No. J-401

API Well No. 47-083-0386
State County Permit

APR 14 1982

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

WELL OPERATOR'S REPORT

OF
DRILLING, FRACURING AND OR STIMULATING, OR PHYSICAL CHANGE

WELL TYPE: Oil / Gas / Liquid Injection Waste Disposal
If "Gas", Production Underground storage Deep Shallow

LOCATION: Elevation: 2785 Watershed: Marsh Fork
District: Middle Fork County: Randolph Quadrangle: Pickens

WELL OPERATOR J & J Enterprises, Inc. DESIGNATED AGENT Harry L. Barnett
Address P.O. Box 48 Address P.O. Box 48
Buckhannon, WV 26201 Buckhannon, WV 26201

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 11/6/, 19 80, OIL & GAS INSPECTOR FOR THIS WORK:
Name Robert Stewart
Address P.O. Box 345

IF APPLICABLE: PLUGGING OF DRY HOLE OR CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED _____
Name _____ Address Jane Lew, WV 26378

GEOLOGICAL TARGET FORMATION: Oriskany Depth 7640-7725 feet

Depth of completed well, 7819 feet Rotary / Cable Tools

Water strata depth: Fresh, 47 feet; salt, 0 feet.

Coal seam depths: 73-76, 590-93, 665-67 Is coal being mined in the area? No

Work was commenced 4/8, 19 81, and completed 4/23, 19 81

CASING AND TUBING PROGRAM

CASING OR TUBING TYPE	SPECIFICATIONS				FOOTAGE INTERVALS		CEMENT FILL-UP OR SACKS (Cubic feet)	PACKERS	
	Size	Grade	Weight per foot	New	Used	For drilling			Left in well
Conductor	11 3/4	H-40	42	x		50	50	0 sks.	Rinds
Fresh water	8 5/8	ERW	23	x		1829	1829	400 sks.	
Coal	8 5/8	ERW	23	x		1829	1829	400 sks.	Sizes
Intermediate									
Production	4 1/2	J-55	10.5	x		4170	4170	250 sks.	Bottoms set
Tubing									
Liners									Perforations:
									Top Bottom
									3891 3894
									4071 4076
									7657 7743

OPEN FLOW DATA

Producing formation Oriskany Pay zone depth 7657-7743 feet

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

Combined Final open flow, 622 Mcf/d Final open flow, _____ Bbl/d

Time of open flow between initial and final tests, 4 hours

Static rock pressure, 1250 psig (surface measurement) after 96 hours shut in

[If applicable due to multiple completion--]

Second producing formation Benson & Riley Pay zone depth 4071 - 4076 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

Bottom Hole Pressure - static rock pressure, _____ psig (surface measurement) after _____ hours shut in

Pf=Pwe XGLS

$t=60+0.0075 \times 4170 + 459.7 = 551$ $X=53.34 \times 551 = 29390$ $=0.000034$ Pf=1250 x 2.72 (0.000034) (0.6) (3984) (0.9)

$=1250 \times 2.72 (0.073) = 1250 \times 1.08$

Pf=1350 psi

APR 19 1982

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

Oriskany: Perforations: 7657-7743 (9 Holes)

Fracturing: 20,000 lbs. 80/100 sand: 40,000 20/40 sand: 700 Bbls. fluid.

Benson: Perforations: 4071-76 (12 holes)

Fracturing: 15,000 lbs. 80/100 sand:

Riley: Perforations: 3891-94 (2 holes)

50,000 lbs. 20/40 sand:

75 gals. Pen 5

WELL LOG

FORMATION	Color	Hard or Soft	Top Feet	Bottom Feet	Remarks Including indication of all gas and salt water, seal, etc.
Clay & Shale			0	25	
Shale & sand			25	73	1 1/2" stream @ 47'
Coal			73	76	
Shale & sand			76	225	
Red rock, sand & shale			225	590	
Coal			590	593	
Shale & sand			593	665	1" stream @ 1250'
Coal			665	667	
Shale & sand			667	820	Gas ck @ 2266 No show
Coal			820	822	
Shale & sand			822	960	Gas ck @ 3744 No show
White sand			960	1050	Gas ck @ 4235 No show
Sand, shale & red rock			1050	1490	Gas ck @ 4484 No show
Big Lime			1490	1835	
Shale & red rock			1835	1920	Gas ck @ 5008 No show
Sand & shale			1920	3450	
Benson			3450	4066	Gas ck @ 5779 No show
Sand & shale			4066	4082	
Sand			4082	4380	Gas ck @ 6550 12/10-3/4" w/water 3,665 cu.ft.
Sand & shale			4380	4700	
Sand			4700	4740	
Sand & shale			4740	5000	Gas ck @ 30/10- 3/4" w/water 5,796 cu.ft.
Sand			5000	5050	
Sand & shale			5050	6880	
Shale			6880	7110	
Marcellus shale			7110	7430	
Onondaga Limestone			7430	7485	
Huntersville Chert			7485	7580	
Shale			7580	7630	
Oriskany			7630	7730	
Helderberg Limestone			7730	7819 TD	

7430
4066
5364

(Attach separate sheets as complete as necessary.)

J & J Enterprises, Inc.

Well Operator

By

Peter Battles
Peter Battles Geologist

NOTE: Regulation 2.0016 provides as follows:

"The term 'log' or 'well log' shall mean a systematic, detailed geological record of all formations, including seal, encountered in the drilling of a well."