

FILE NO. \_\_\_\_\_  
 DRAWING NO. \_\_\_\_\_  
 SCALE 1" = 1000'  
 MINIMUM DEGREE OF ACCURACY 1 PART IN 200  
 PROVEN SOURCE OF ELEVATION B.M. AT INTER. OF RT. 25 and 25/14 ELEVATION 1016'

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) Carl R. Main  
 R.P.E. \_\_\_\_\_ L.L.S. 711



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



DATE JUNE 9<sup>th</sup>, 19 81  
 OPERATOR'S WELL NO. J-223  
 API WELL NO. 47-017-3022  
 STATE WEST VIRGINIA COUNTY BOYD PERMIT 3022

STATE OF WEST VIRGINIA  
 DEPARTMENT OF MINES  
 OIL AND GAS DIVISION

WELL TYPE: OIL \_\_\_ GAS X LIQUID INJECTION \_\_\_ WASTE DISPOSAL \_\_\_  
 (IF "GAS,") PRODUCTION X STORAGE \_\_\_ DEEP \_\_\_ SHALLOW X  
 LOCATION: ELEVATION 1150' WATER SHED LAUREL RUN  
 DISTRICT TENMILE COUNTY BOYD  
 QUADRANGLE BIG ISAAC Vadis 15 NE  
 SURFACE OWNER BESSIE M. ROSS ACREAGE 75 Ac.  
 OIL & GAS ROYALTY OWNER LESSIE WARD -- BESSIE M. ROSS LEASE ACREAGE 150 Ac.  
 LEASE NO. H.S. 19  
 PROPOSED WORK: DRILL X CONVERT \_\_\_ DRILL DEEPER \_\_\_ REDRILL \_\_\_ FRACTURE OR STIMULATE X PLUG OFF OLD FORMATION \_\_\_ PERFORATE NEW FORMATION \_\_\_ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_\_\_

PLUG AND ABANDON \_\_\_ CLEAN OUT AND REPLUG \_\_\_  
 TARGET FORMATION ALEXANDER ESTIMATED DEPTH 5400'  
 WELL OPERATOR J. AND J. ENTERPRISES, INC. DESIGNATED AGENT ROGER ROLSTON  
 ADDRESS P.O. BOX 48 ADDRESS P.O. BOX 48  
BUCKHANNON, WEST VIRGINIA 26201 BUCKHANNON, WEST VIRGINIA 26201

JUL 09 1981

Date: August 6, 19 81

Operator's Well No. T-223

API Well No. 47 - 017 -3022  
State County Permit

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

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

WELL TYPE: Oil / Gas X / Liquid Injection / Waste Disposal  
(If "Gas", Production X / Underground storage / Deep / Shallow X /)  
LOCATION: Elevation: 1150 Watershed: Laurel Run  
District: Tennile County: Doddridge Quadrangle: Big Isaac

WELL OPERATOR J & J Enterprises, Inc. DESIGNATED AGENT James R. Willett  
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 6/17, 19 81 OIL & GAS INSPECTOR FOR THIS WORK:  
(IF APPLICABLE: PLUGGING OF DRY HOLE OR CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED) Name Stephen Casey  
Address Rt. # 2, Box 232-D  
Jane Loo, WV 26378

GEOLOGICAL TARGET FORMATION: Alexander Depth 5195-5240 feet  
Depth of completed well, 5621 feet Rotary X / Cable Tools  
Water strata depth: Fresh 25,115,682 feet; salt, 0 feet.  
Coal seam depths: None Is coal being mined in the area? NO  
Work was commenced 7/22, 19 81, and completed 7/27, 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 ft	New	Used	For drilling		
Conductor	11 3/4	H-40	42	X		29	29	0 sks. Kinds
Fresh water	8 5/8	ERW	23	X		856.45	856.45	200 sks.
Coal	8 5/8	ERW	23	X		856.45	856.45	200 sks. Sizes
Intermediate								
Production	4 1/2	J-55	10.5	X		5287.8	5287.8	175 sks. Depths set
Tubing								
Liners								
								Perforations: Top Bottom
								5196-5221
								4854-4864

RECEIVED  
AUG 10 1981

OIL & GAS DIVISION

DEPT. OF MINES

OPEN FLOW DATA

Producing formation Alexander Pay zone depth 5196-5221 feet  
Gas: Initial open flow,        Mcf/d Oil: Initial open flow,        Bbl/d  
Combined Final open flow, 919 Mcf/d Final open flow,        Bbl/d  
Time of open flow between initial and final tests, 6 hours  
Static rock pressure, 1700 psig (surface measurement) after 96 hours shut in

(If applicable due to multiple completion--)

Second producing formation Benson Pay zone depth 4854-4864 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

Hole Pressure Static rock pressure,        psig (surface measurement) after        hours shut in AUG 24 1981

$e=2.72 \quad x=53.34(T) = 53.34(559) = 29817 = 0.0000335 \quad T=60+(5287 \times 0.0075)+459.7 \quad T=559$

000335 G=0 L=5038 S=0.9 Pf=1700 x 2.72

108-781

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

Alexander: Perforations: 5196-5221 (14 holes)

Fracturing: 15000 lbs. 80/100 sand: 35000 lbs. 20/40 sand: 200 lbs. Citric Acid.  
750 Bbls. fluid.

Benson: 4854-4864 (12 Holes)

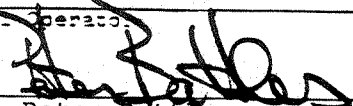
Fracturing: 15000 lbs. 80/100 sand: 45000 lbs. 20/40 sand: 500 gal. Acid.  
750 Bbls. fluid

WELL 102

FORMATION	Color	Hard or Soft	Top Feet	Bottom Feet	REMARKS Including indication of all gas and salt water, coal, oil and gas
Shale			0	20	
Sand			20	25	
Brown sand			25	30	Wet @ 25'
Gray sand			25	30	Wet @ 115'
Sand & shale			30	110	Wet @ 682'
White sand			110	135	
Sand & shale			135	240	Gas ck @ 2922- 4/10-1/2" w/water
Sand & shale			240	295	3,785 cu.ft.
Red rock & shale			295	370	
Sand & shale			370	475	Gas ck @ 3386- 4/10-1/2" w/water
Sand & shale			475	695	3,785 cu.ft.
Red rock & shale			695	720	Gas ck @ 2240-2/10 -1/2" w/water
Shale & red rock			720	755	
Shale & red rock			755	905	2.533 cu.ft.
Sand, shale & red rock			905	1770	Gas ck @ 4691 - No show
Lime			1770	1785	
Red rock & white sand			1785	1802	Gas ck @ 4879 70/10-1" w/water
Lime, red rock & shale			1802	1825	15,745 cu.ft.
Lime, sand & shale			1825	1845	
Red rock			1845	1870	Gas ck @ 5312 52/10-1" w/water
Blue Monday			1870	1890	
Red rock			1890	1910	13,516 cu.ft.
Little Lime			1910	1928	
Red rock			1928	1952	
Big Lime			1952	2095	
Big Injun			2095	2170	
Sand & shale			2170	4845	
Benson			4845	4875	
Sand & shale			4875	5195	
Alexander			5195	5240	
Sand & shale			5240	5621 TD	

(Attach separate sheets to complete as necessary)

J & J Enterprises, Inc.

well operator  
By   
Peter Battles Geologist

NOTE: Regulation 2.02(6) provides as follows:

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

[08-78]

OIL AND GAS WELL PERMIT APPLICATION

Operator's Well No. J-223

API Well No. 47 - 017 3022 State County Per

WELL TYPE: Oil / Gas x / (If "Gas", Production x / Underground storage / Deep / Shallow x /) LOCATION: Elevation: 1150 Watershed: Laurel Run District: Tenmile County: Doddridge Quadrangle: Big Isaac

WELL OPERATOR J & J Enterprises, Inc. Address P.O. Box 48 Buckhannon, WV 26201

DESIGNATED AGENT Roger Rolston Address P.O. Box 48 Buckhannon, WV 26201

OIL & GAS JOINTLY OWNER Lessie Ward/Bessie M. Ross Address C/O Charles L. Ross Route # 2 Bristol, WV 26332 Acreage 150

COAL OPERATOR None Address:

SURFACE OWNER Bessie M. Ross Address C/O Charles L. Ross Route # 2 Bristol, WV 26332 Acreage 75

COAL OWNER(S) WITH DECLARATION ON RECORD: Name Eastern Association Coal Corporation Address Koppers Building Pittsburgh, Pa. 15219

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

Name Address

OIL & GAS INSPECTOR TO BE NOTIFIED Name Stephen Casey Address Rt. # 2, Box 232-D Jane Lew, WV 26378

COAL LESSEE WITH DECLARATION ON RECORD: Name Address RECEIVED JUN 17 1981

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 Aug. 20, 1979, to the undersigned well operator from Hugh Spencer [if said deed, lease, or other contract has been recorded:]

Recorded on Aug. 28, 1979, in the office of the Clerk of the County Commission of Doddridge County, West Virginia, in Oil & Gas Book 111 at page 393. 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 location they wish to make or are required to make by Code § 20-4-3 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 registered mail or delivered by hand to the above named coal operator, coal owner(s), and coal lessee 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 PHYSICAL LOGS DIRECTLY TO: WEST VIRGINIA OIL AND GAS CONSERVATION COMMISSION 115 WASHINGTON STREET EAST CHARLESTON, WV 25301

BLANKET BOND

J & J Enterprises, Inc. Well Operator By: Peter Battles Its Geologist

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 Company

Address P.O. Box 48

Buckhannon, WV 26201

GEOLOGICAL TARGET FORMATION, Alexander

Estimated depth of completed well, 5400 feet Rotary [x] Cable tools [ ]

Approximate water strata depths: Fresh, 45 feet; salt, None feet.

Approximate coal seam depths: 560 IS coal being mined in the area? Yes [ ] No [x]

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), PACKERS (Kinds, Sizes, Depths set, Performances: 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 § 22-4-2a from the owner of any water well or drilling within 200 feet of the proposed well.

A separate Form IV-2 shall not be required for fracturing or stimulating a well unless 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 3-1-82

Signature of Deputy Director - Oil & Gas Division

Signature of Surveyor

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: , 19

By Its