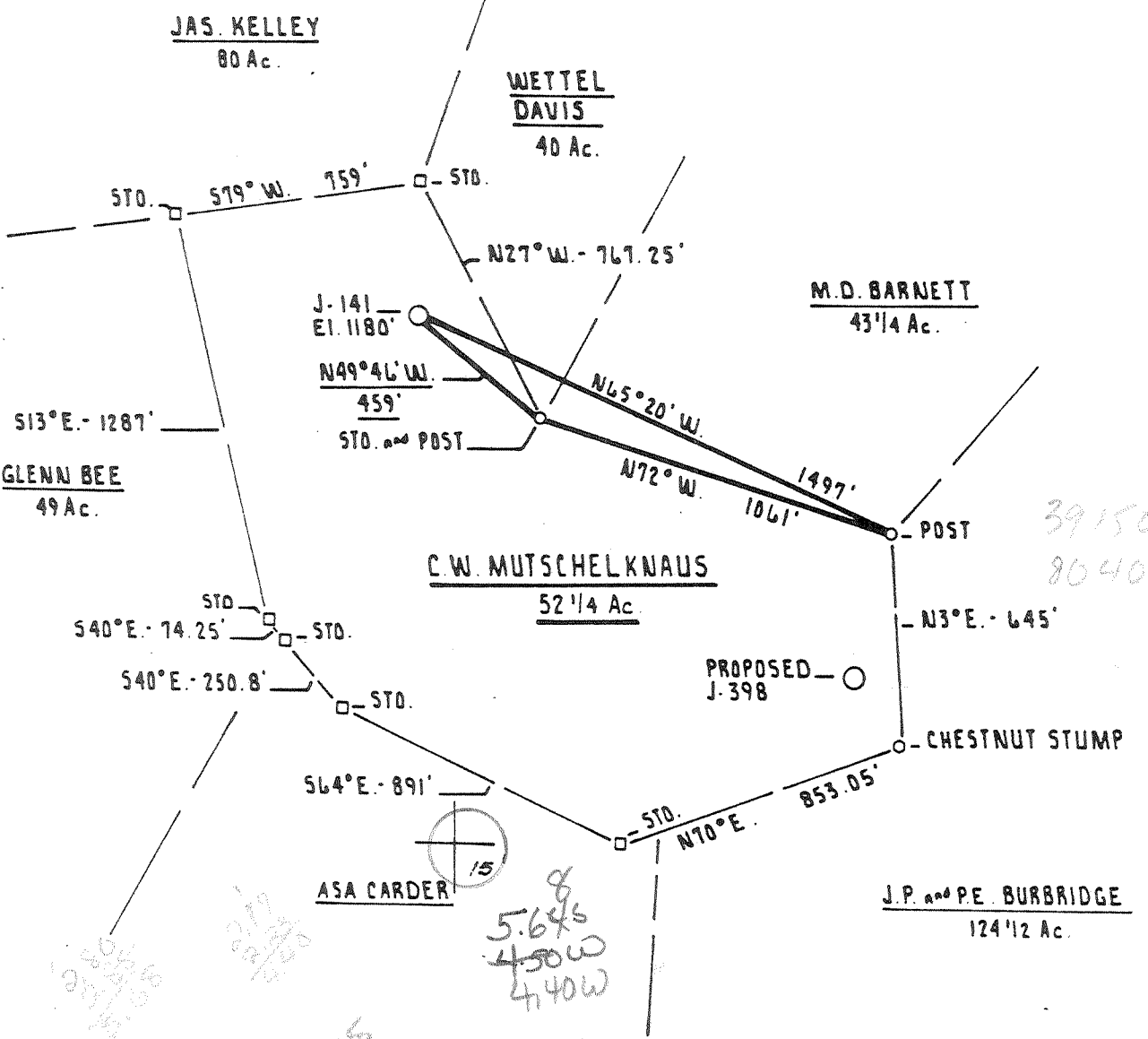


NORTH



FILE NO. \_\_\_\_\_  
 DRAWING NO. \_\_\_\_\_  
 SCALE 1" = 500'  
 MINIMUM DEGREE OF ACCURACY 1 PART IN 200  
 PROVEN SOURCE OF ELEVATION INTERSECTION (42) and (15) ELEV: 858'

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

PLACE SEAL HERE

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



DATE FEBRUARY 11<sup>th</sup>, 19 81  
 OPERATOR'S WELL NO. J-141  
 API WELL NO. \_\_\_\_\_  
 47 - 017 - 3032  
 STATE COUNTY PERMIT

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 1180' WATER SHED WOLF PEN RUN  
 DISTRICT NEW MILTON COUNTY DODDRIDGE  
 QUADRANGLE SMITHBURG 7.5' Centerpoint 15' SW Centerpoint SC  
 SURFACE OWNER DELUERT ATKINSON ACREAGE 52 1/4 Ac.  
 OIL & GAS ROYALTY OWNER C.W. MUTSCHELKNAUS LEASE ACREAGE 52 1/4 Ac.  
 LEASE NO. H-11

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' 6" G NEW MILTON N.  
 WELL OPERATOR J. AND J. ENTERPRISES INC. DESIGNATED AGENT ROGER ROWSTON  
 ADDRESS P.O. BOX 48 BUCKHANNON, WEST VIRGINIA 26201 ADDRESS P.O. BOX 48 BUCKHANNON, WEST VIRGINIA 26201  
 AUG 11 1981

**RECEIVED**

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

FEB 18 1982

WELL OPERATOR'S REPORT  
OF

OIL AND GAS DIVISION  
WV DEPARTMENT OF MINES

WELL TYPE: Oil \_\_\_ / Gas x / Liquid Injection \_\_\_ / Waste Disposal \_\_\_  
 (If "Gas", Production X / Underground storage \_\_\_ / Deep \_\_\_ / Shallow X)  
 LOCATION: Elevation: 1180 Watershed: Wolfpen Run  
 District: New Milton County: Doddridge Quadrangle: Smithburg 7.5'  
 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 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 7/2, 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 Lew, WV 26378

GEOLOGICAL TARGET FORMATION: Alexander Depth 5404 - 5596 feet  
 Depth of completed well, 5753 feet Rotary x / Cable Tools \_\_\_  
 Water strata depth: Fresh, 60-90 feet; salt, 0 feet.  
 Coal seam depths: None Is coal being mined in the area? No  
 Work was commenced 1/14, 19 82, and completed 1/20, 1982

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	11 3/4	H-40	42	x		26	26	0 sks.	Hands
Fresh water	8 5/8	ERW	23	x		1211	1211	310 sks.	
Seal	8 5/8	ERW	23	x		1211	1211	310 sks.	Sizes
Intermediate									
Producing	4 1/2	J-55	10.5	x		5648.15	5648.15	190 sks.	Downs set
Tubing									
Liners									Perforations:
									Top Bottom
									5142 5146
									5244 5247
									5404 5596

OPEN FLOW DATA

Producing formation Alexander Pay zone depth 5408-5596 feet  
 Gas: Initial open flow, \_\_\_ Mcf/d Oil: Initial open flow, \_\_\_ Bbl/d  
 Combined Final open flow, 440 Mcf/d Final open flow, \_\_\_ Bbl/d  
 Time of open flow between initial and final tests, 4 hours  
 Static rock pressure, 1450 psig (surface measurement) after 96 hours shut in  
 [If applicable due to multiple completion--] 5142-46  
 Second producing formation Benson & Riley Pay zone depth 5244-47 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=PweXGLS  
 $t=60+(0.0075 \times 5648)+459.7 = 562$   $X=53.35 \times 562 = 29986$   $=0.0000333$   $Pf=1450 \times 2.76 (0.000033)$   
 $(0.690)(5275)(0.9) = 1450 \times 2.72$   $0.109 = 1450 \times 1.12$

Pf=1617 psi

REC 01 1982

108-781

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

Alexander: Perforations: 5404-08 (4 holes) 5570-72 (2 holes) 5593-96 (4 holes)  
Fracturing: 150 sks. 80/100 sand: 400 sks. 20/40 sand: 500 Bbls. fluid.

Benson: Perforations: 5244-47 (12 holes)  
Fracturing: 100 sks. 80/100 sand: 300 sks. 20/40 sand: 500 gal. acid:500 Bbls.fluid

Riley: Perforations: 5142-46 (12 holes)  
Fracturing: 100 sks. 80/100 sand: 300 sks. 20/40 sand: 500 gal. Acid:500 Bbls.fluid.

WELL LOG

FORMATION	Color	Hard or Soft	Top Feet	Bottom Feet	Remarks Including indication of all gas and salt water, coal, oil and gas
Top Hole			0	10	
Sand & shale			10	50	Damp @ 60'
Sand			50	125	
Red rock & shale			125	524	Damp @ 90"
Red rock			524	550	
Shale & sand			550	1510	Gas ck @ 2709 4/10-1/2" w/water 3,705 cu.ft.
Shale			1510	2270	
Big Lime			-2270	2375	Gas ck @ 4984 18/10-1/2" w/water 7,927 cu.ft.
Shale & sand			2375	2995	
Shale & sand			2995	5142	Gas ck @ 5355 20/10-1/2" w/water 8,419 cu.ft.
Riley			5142	5146	
Shale & sand			5146	5244	
Benson			-5244	5247	Gas ck @ 5662 24/10-1/2" w/water 9,223 cu.ft.
Shale & sand			5247	5404	
<u>Alexander</u>			5404	5596	
Shale			5596	5753	
				T.D.	

(Attach separate sheets to complete as necessary)

J & J Enterprises, Inc.

Well Operator

By

Its

Peter Battles

Geologist

NOTE: Regulation 2.02(d) 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-141  
API Well No. 47-017 3032  
State County Perm

WELL TYPE Oil \_\_\_ / Gas x /  
(If "Gas", Production x / Underground storage \_\_\_ / Deep \_\_\_ / Shallow x /)

LOCATION: Elevation: 1180 Watershed: Wolfpen Run  
District: New Milton County: Doddridge Quadrangle: Smithburg 7.5'

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 ROYALTY OWNER C.W. Mutschelknaus  
Address Rt. # 1, Box 52  
Salem, WV 26426

COAL OPERATOR None  
Address

ACREAGE 52 1/4  
SURFACE OWNER Delvert Atkinson  
Address 5 Beech St.  
North East, Maryland 21901  
ACREAGE 52 1/4

COAL OWNER(S) WITH DECLARATION ON RECORD:  
Name J.Q. Van Swearingan  
Address (Address Unknown)

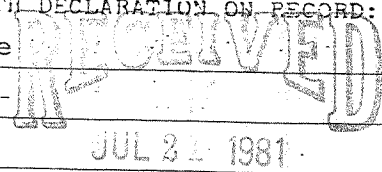
FIELD SALE (IF MADE) TO:  
Name Unknown  
Address

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 None  
Address

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 9/14, 1979, to the undersigned well operator from Justin L. Henderson

If said deed, lease, or other contract has been recorded:]  
Recorded on 9/23, 1979, in the office of the Clerk of the County Commission of Doddridge County, West Virginia, in Oil & Gas lease Book 111 at page 269. 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 application they wish to make or are required to make by Code 5 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 plan 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 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 GEOLOGICAL LOGS DIRECTLY TO:  
WEST VIRGINIA OIL AND GAS CONSERVATION COMMISSION  
115 WASHINGTON STREET EAST  
CHARLESTON, WV 25311  
TELEPHONE: (304) 348-3092

BLANKET BOND

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

[08-78]

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  Cable tools   
Approximate water strata depths: Fresh, 450 feet; salt, 1750 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	11 3/4	H-40	42	x		30	0	0 sks.	Kinds
Fresh water	8 5/8	ERW	23	x		1800	1800	450 sks.	
Coal	8 5/8	ERW	23	x		1800	1800	450 sks.	Sizes
Intermediate									
Production	4 1/2	J-55	10.5	x		5350	5350	300 sks.	Depths set
Tubing									
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 § 22-4-2a from the owner of any water well or drilling within 200 feet of the proposed well.

A separate Form IV-3 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 3-24-82  
[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: \_\_\_\_\_, 19\_\_\_\_

By \_\_\_\_\_  
Its \_\_\_\_\_