

FILE NO. \_\_\_\_\_  
 DRAWING NO. \_\_\_\_\_  
 SCALE 1" = 500'  
 MINIMUM DEGREE OF ACCURACY 1 PART IN 200  
 PROVEN SOURCE OF ELEVATION INT. RT. 19 1/2 and 23/3  
ELEVATION 856'

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) Daniel L. Wheeler  
 R.P.E. \_\_\_\_\_ L.L.S. 530



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



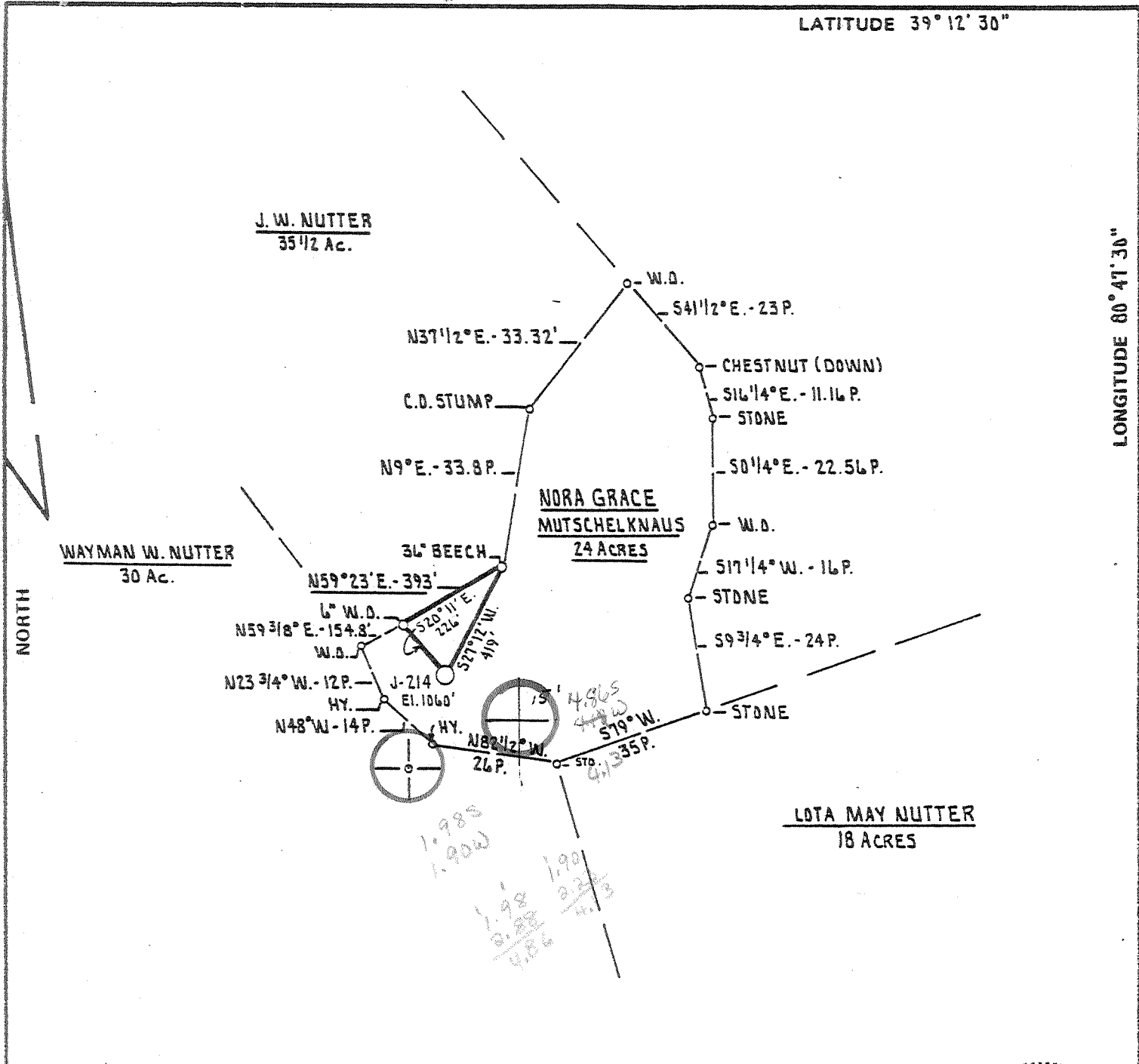
DATE DECEMBER 9<sup>th</sup>, 19 80  
 OPERATOR'S WELL NO. J-214  
 API WELL NO. 47 - 017 - 2910  
 STATE 47 COUNTY 017 PERMIT 2910

**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 1120' WATER SHED JIMS RUN TO UPPER RUN TO MIDDLE FORK  
 DISTRICT SOUTHWEST COUNTY DDDRIDGE  
 QUADRANGLE OXFORD T.5' NE Holbrook  
 SURFACE OWNER LEE CASHDOLLAR ACREAGE 24 Ac.  
 OIL & GAS ROYALTY OWNER NORA GRACE MUTSCHELKNAUS LEASE ACREAGE 24 Ac.  
 LEASE NO. M-220  
 PROPOSED WORK: DRILL  CONVERT  DRILL DEEPER  REDRILL  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION  PERFORATE NEW FORMATION  OTHER PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_\_\_  
 REVISED LOCATION STK. # 2  
 PLUG AND ABANDON  CLEAN OUT AND REPLUG   
 TARGET FORMATION ALEXANDER ESTIMATED DEPTH 5400'  
 WELL OPERATOR J. and J. ENTERPRISES INC. DESIGNATED AGENT HARRY BARNETT  
 ADDRESS P.O. BOX 48 ADDRESS P.O. BOX 48  
BUCKHANNON WEST VIRGINIA 26201 BUCKHANNON WEST VIRGINIA 26201

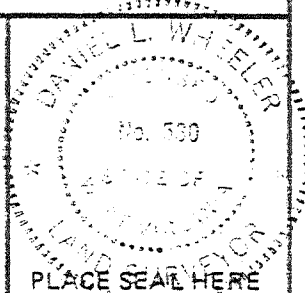
6-6 Straight Fork-Bluestone Creek (133)

JAN 21 1981



FILE NO. \_\_\_\_\_  
 DRAWING NO. \_\_\_\_\_  
 SCALE 1" = 500'  
 MINIMUM DEGREE OF ACCURACY 1 PART IN 200  
 PROVEN SOURCE OF ELEVATION INT. RT. 19/6 and RT. 23/3  
ELEVATION 856'

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) Daniel L. Wheeler  
 R.P.E. \_\_\_\_\_ L.L.S. 530



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



DATE SEPTEMBER 5<sup>th</sup>, 19 80  
 OPERATOR'S WELL NO. J-214  
 API WELL NO. \_\_\_\_\_  
 was! 47 - 017 - 2870  
 STATE COUNTY PERMIT  
NEVER DRILLED - CANCELLED  
 now! 017-2910

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 1060' WATER SHED JIMS RUN TO UPPER RUN TO MIDDLE FORK  
 DISTRICT SOUTHWEST COUNTY DDDRIDGE  
 QUADRANGLE OXFORD T.5 ME Holbrook T.5  
 SURFACE OWNER LEE CASHDOLLAR ACREAGE 24 Ac.  
 OIL & GAS ROYALTY OWNER NORA GRACE MUTSCHELKNAUS LEASE ACREAGE 24 Ac.  
 LEASE NO. M-220  
 PROPOSED WORK: DRILL X 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 ALEXANDER ESTIMATED DEPTH 5400'  
 WELL OPERATOR J. and J. ENTERPRISES, INC. DESIGNATED AGENT HARRY BARNETT  
 ADDRESS P.O. BOX 48 ADDRESS P.O. BOX 48  
BUCKHANNON, WEST VIRGINIA 26201 BUCKHANNON, WEST VIRGINIA 26201

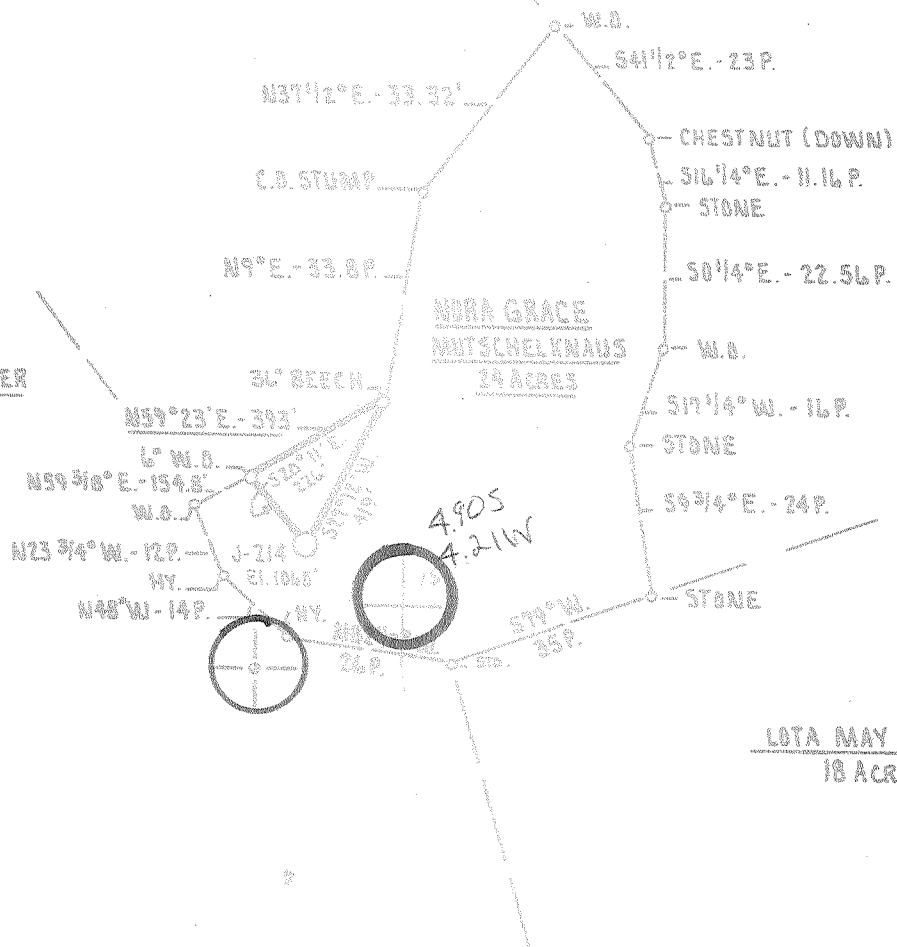
NORTH

J. W. NUTTER  
35 1/2 Ac.

WAYMAN W. NUTTER  
30 Ac.

NORA GRACE  
MUTSCHKNAUS  
24 ACRES

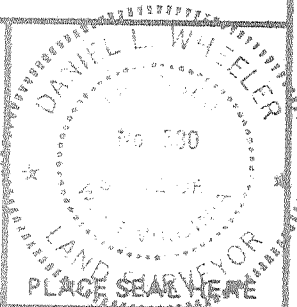
LOTA MAY NUTTER,  
18 ACRES



FILE NO. \_\_\_\_\_  
 DRAWING NO. \_\_\_\_\_  
 SCALE 1" = 500'  
 MINIMUM DEGREE OF ACCURACY 1 PART IN 200  
 PROVEN SOURCE OF ELEVATION INT. RT. 19/L AND RT. 23/3  
ELEVATION 856'

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) Daniel L. Wheeler  
 R.P.E. \_\_\_\_\_ L.L.S. 530



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



DATE SEPTEMBER 5<sup>th</sup>, 19 80  
 OPERATOR'S WELL NO. J-214  
 API WELL NO. \_\_\_\_\_  
47 - 017 - 2870  
 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 1860' WATER SHED JIMS RUN TO UPPER RUN TO MIDDLE FORK  
 DISTRICT SOUTHWEST COUNTY BOYD  
 QUADRANGLE OXFORD 7.5' Holbrook 15' NE  
 SURFACE OWNER LEE CASHDOLLAR ACREAGE 24 Ac.  
 OIL & GAS ROYALTY OWNER NORA GRACE MUTSCHKNAUS LEASE ACREAGE 24 Ac.  
 LEASE NO. M-220  
 PROPOSED WORK: DRILL X 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 ALEXANDER ESTIMATED DEPTH 5400'  
 WELL OPERATOR J. and J. ENTERPRISES, INC. DESIGNATED AGENT HARRY BARNETT  
 ADDRESS P.O. BOX 48 ADDRESS P.O. BOX 48  
BUCKHANNON, WEST VIRGINIA 26201 BUCKHANNON, WEST VIRGINIA 26201

DEC 5 1980

007201001

Date: Oct. 12, 1981

Operator's Well No. J-214  
API Well No. 47-017-2910  
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  / Liquid Injection  / Waste Disposal   
(If "Gas", Production  / Underground storage  / Deep  / Shallow   
LOCATION: Elevation: 1035 Watershed: Jims Run to Upper Run To Middle Fork  
District: Southwest County: Doddridge Quadrangle: Oxford 7.5'

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  / Convert  / Drill deeper  / Redrill  / Fracture or stimulate   
Plug off old formation  / Perforate new formation   
Other physical change in well (specify) \_\_\_\_\_

PERMIT ISSUED ON 12/24, 1980 OIL & GAS INSPECTOR FOR THIS WORK:  
(IF APPLICABLE: PLUGGING OF DRY HOLE OR CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED) Name Steve Casey  
Address Rt. # 2, Box 232-D  
Jane Lew, WV 26378

GEOLOGICAL TARGET FORMATION: Alexander Depth 5090-5140 feet  
Depth of completed well, 5304 feet Rotary  / Cable Tools   
Water strata depth: Fresh, 1340 feet; salt, 1565 feet.  
Coal seam depths: None Is coal being mined in the area? No  
Work was commenced 8/4, 1981, and completed 8/9, 1981

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. Hinds
Fresh water	8 5/8	ERW	23	x		1675.15	1675.15	445 sks.
Coal	8 5/8	ERW	23	x		1675.15	1675.15	445 sks. Sides
Intermediate								
Production	4 1/2	J-55	10.5	x		5215.35	5215.35	210 sks. Beams set
Tubing								
Liners								
								Perforations:
								Top Bottom
								4425 4424
								4834 4836
								5102 5158

OPEN FLOW DATA

Producing formation Alexander Pay zone depth 5102-5158 feet  
Gas: Initial open flow, \_\_\_\_\_ Mcf/d Oil: Initial open flow, \_\_\_\_\_ Bbl/d  
Combined Final open flow, 1,164 Mcf/d Final open flow, \_\_\_\_\_ Bbl/d  
Time of open flow between initial and final tests, 4 hours  
Static rock pressure, 2000 psig (surface measurement) after 96 hours shut in  
[If applicable due to multiple completion--]  
Second producing formation Benson & Riley Pay zone depth 4834-4836 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  
Static rock pressure, \_\_\_\_\_ psig (surface measurement) after \_\_\_\_\_ hours shut in

om Hole Pressure  
=PweXGLS

$$0000 \times 2.72 \times t = 459 + (0.0075 \times 5215) + 60 = 559 \times \frac{1}{53.35(559)} = \frac{1}{29823} = 0.0000335 \text{ Pf} = 2000 \times 2.72$$

$$00335) (0.60) (4792) (0.9) = 2000 \times 2.72 \times 0.087 = 2000 \times 1.09$$

[08-78]

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

Alexander: Perforations: 4834-5158 (20 holes)

&  
Benson Fracturing: 15,000 lbs. 80/100 sadn: 45,000 lbs. 20/40 sand: 250 lbs. Acid:  
600 Bbls. fluid.

Riley: Perforations: 4425-29 (12 holes)

Fracturing: 10,000 lbs. 80/100 sand: 28,000 lbs. 20/40 sand: 500 gals. Acid:  
500 Bbls. fluid.

WELL LOG

FORMATION	Color	Hard or Soft	Top Feet	Bottom Feet	REMARKS Including indication of all fresh and salt water, coal, oil and gas
Clay			0	10	
Sand & red rock			10	55	Damp @ 1340
Brown sand & red rock			55	110	More water @ 1610
Grey sand, red rock & shale			110	195	
Sand & shale			195	295	Gas ck @ 2141 76/10-1" w/water 55,617 cu.ft.
Red rock & shale			295	520	
Red rock, shale & sand			520	655	
Red rock & shale			655	748	Gas ck @ 3817 80/10-1" w/water 67,337 cu.ft.
Sand & red rock			748	785	
Sand, shale & red rock			785	903	
Shale & white sand			903	1075	Gas ck @ 4686 40/10-1" w/water 47,629 cu.ft.
Grey shale & white sand			1075	1180	
Grey shale & white sand			1180	1368	
Grey sand			1368	1390	Gas ck @ 4838 40/10-1" w/water 47,629 cu.ft.
Grey & black shale			1390	1505	
Grey sand & shale			1505	1565	
Salt sand			1565	1620	
Sand & shale			1620	1840	Gas ck @ 5025 60/10-1" w/water 58,383 cu.ft.
Big Lime			1840	1915	
Big Injun			1915	2040	Gas ck @ 5181 68/10-1" w/water 62,085 cu.ft.
Sand & shale			2040	4425	
Riley			4425	4429	
Sand & shale			4429	4815	
Benson			4815	4820	
Sand & shale			4820	4834	
Alexander			4834	5140	
Sand & shale			5140	5180	
Sand & shale			5180	5304	
				TD	

(Attach separate sheets to complete as necessary.)

J. S. J. Enterprises, Inc.  
Operator  
By Peter Battles  
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-214

API Well No. 47 - 017 - 2870 State County Permit

WELL TYPE: Oil / Gas x / (If "Gas", Production x / Underground storage / Deep / Shallow x /) LOCATION: Elevation: 1060 Watershed: Jims Run to Upper Run to Middle Fork District: Southwest County: Doddridge Quadrangle: Oxford 7.5'

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

DESIGNATED AGENT H.L. Barnett Address Box 48 Buckhannon, WV 26201

LAND & GAS LEASE & GAS LEASE OWNER Nora Grace Mutschelknaus/Foley Heirs Address C/O Clarence W. Mutschelknaus Salem, WV 26426

COAL OPERATOR None Address:

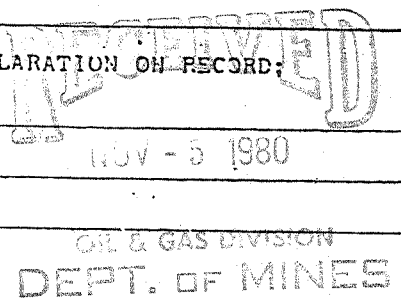
ACREAGE 24 SURFACE OWNER Lee & Patricia L. Cashdollar Address Box 186 West Union, WV 26456

COAL OWNER(S) WITH DECLARATION ON RECORD: Name Ruth Foley Heirs/Mutschelknaus Heirs Address C/O Clarence W. Mutschelknaus Salem, WV 26426

DEED SALE (IF MADE) TO: Consolidated Gas (pending) Address Clarksburg, WV 26301

COAL LESSEE WITH DECLARATION ON RECORD: Name Address NOV - 5 1980

LAND & GAS INSPECTOR TO BE NOTIFIED Paul Garrett Address 321 Beech St. Clarksburg, WV 26301



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 1/25, 19 80; to the undersigned well operator from Clarence W. Mutschelknaus

of said deed, lease, or other contract has been recorded: recorded on 1/25, 19 80, in the office of the Clerk of the County Commission of Doddridge County, West Virginia, in Oil & Gas lease Book 113 at page 453. 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)

as 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 changes they wish to make or are required to make by Code § 22-4-3 must be filed with the Department within fifteen (15) days after the receipt of this Application by the Department.

Copies of this Permit Application and the enclosed plat and declaration plan have been mailed 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 PHYSICAL LOGS DIRECTLY TO: WEST VIRGINIA OIL AND GAS CONSERVATION COMMISSION 100 WASHINGTON STREET EAST CHARLESTON, WV 25311

BLANKET BOND

J & J Enterprises, Inc. Well Operator By [Signature]

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, 120 feet; salt, None feet.
Approximate coal seam depths: None Is coal being mined in the area: Yes / No

CASING AND TUBING PROGRAM

Table with columns: CASING OR TUBING TYPE, SPECIFICATIONS (Size, Grade, Weight, New, Used), FOOTAGE INTERVALS (For drilling, Left in well), CEMENT FILL-UP OR SACKS (Cubic feet), PACKERS (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 drilling 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 7-11-81

J. P. Murray Deputy Director Oil & Gas Division

This permit shall not be issued 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.

By Its

[08-78]

OIL AND GAS WELL PERMIT APPLICATION

Operator's Well No. J-214  
API Well No. 47 - 017 - 2910  
State County Permit

WELL TYPE: Oil  / Gas   
(If "Gas", Production  / Underground storage  / Deep  / Shallow  / (Revised))

LOCATION: Elevation: 1035 Watershed: Jims Run to Upper Run to Middle Fork  
District: Southwest County: Doddridge Quadrangle: Oxford 7.5'

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

DESIGNATED AGENT H.L. Barnett  
Address Box 48  
Buckhannon, WV 26201

LAND & GAS  
PROPERTY OWNER Nora Grace Mutschelknaus/Foley Heirs  
Address C/O Clarence W. Mutschelknaus  
Salem, WV 26426

COAL OPERATOR None  
Address \_\_\_\_\_

ACREAGE 24  
SURFACE OWNER Lee & Patricia L. Cashdollar  
Address Box 186  
West Union, WV 26456  
ACREAGE 24

COAL OWNER(S) WITH DECLARATION ON RECORD:  
Name Ruth Foley Heirs/Mutschelknaus Heirs  
Address C/O Clarence W. Mutschelknaus  
Salem, WV 26426  
Name \_\_\_\_\_  
Address \_\_\_\_\_

DEED SALE (IF MADE) TO:  
Name Consolidated Gas (pending)  
Address \_\_\_\_\_  
Clarksburg, WV 26301

COAL LESSEE WITH DECLARATION ON RECORD:  
Name \_\_\_\_\_  
Address \_\_\_\_\_  
**RECEIVED**  
DEC 24 1980

LAND & GAS INSPECTOR TO BE NOTIFIED  
Name Paul Garrett  
Address 321 Beech St.  
Clarksburg, WV 26301

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  / dated 1/25, 1980; to the undersigned well operator from Clarence W. Mutschelknaus if said deed, lease, or other contract has been recorded:]

Recorded on 1/25, 1980, in the office of the Clerk of the County Commission of Doddridge County, West Virginia, in Oil & Gas lease Book 113 at page 453. A permit is requested as follows:

PROPOSED WORK: Drill  / 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 well operator, coal owner(s), and coal lessee are hereby notified that any change they wish to make is 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 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 PHYSICAL LOGS DIRECTLY TO:  
WEST VIRGINIA OIL AND GAS CONSERVATION COMMISSION  
111 WASHINGTON STREET EAST  
CHARLESTON, WV 25311

BLANKET BOND

J & J Enterprises, Inc.  
Well Operator

*[Handwritten signature]*



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, 120 feet; salt, None 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	30	0 sks.	Kinds
Fresh water	8 5/8	ERW	23	x		1300	1300	350 sks.	} <i>ETS</i> Sizes
Coal	8 5/8	ERW	23	x		1300	1300	350 sks.	
Intermediate									
Production	4 1/2	J-55	10.5	x		5350	5350	<del>535</del> 400 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 § 22-4-8a 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 8-30-81

*J. P. Murray*  
Deputy Director - Oil & Gas Division

This permit must be posted 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:

TA I V E R

The undersigned coal operator / owner / lessee of the coal under this well 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.

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