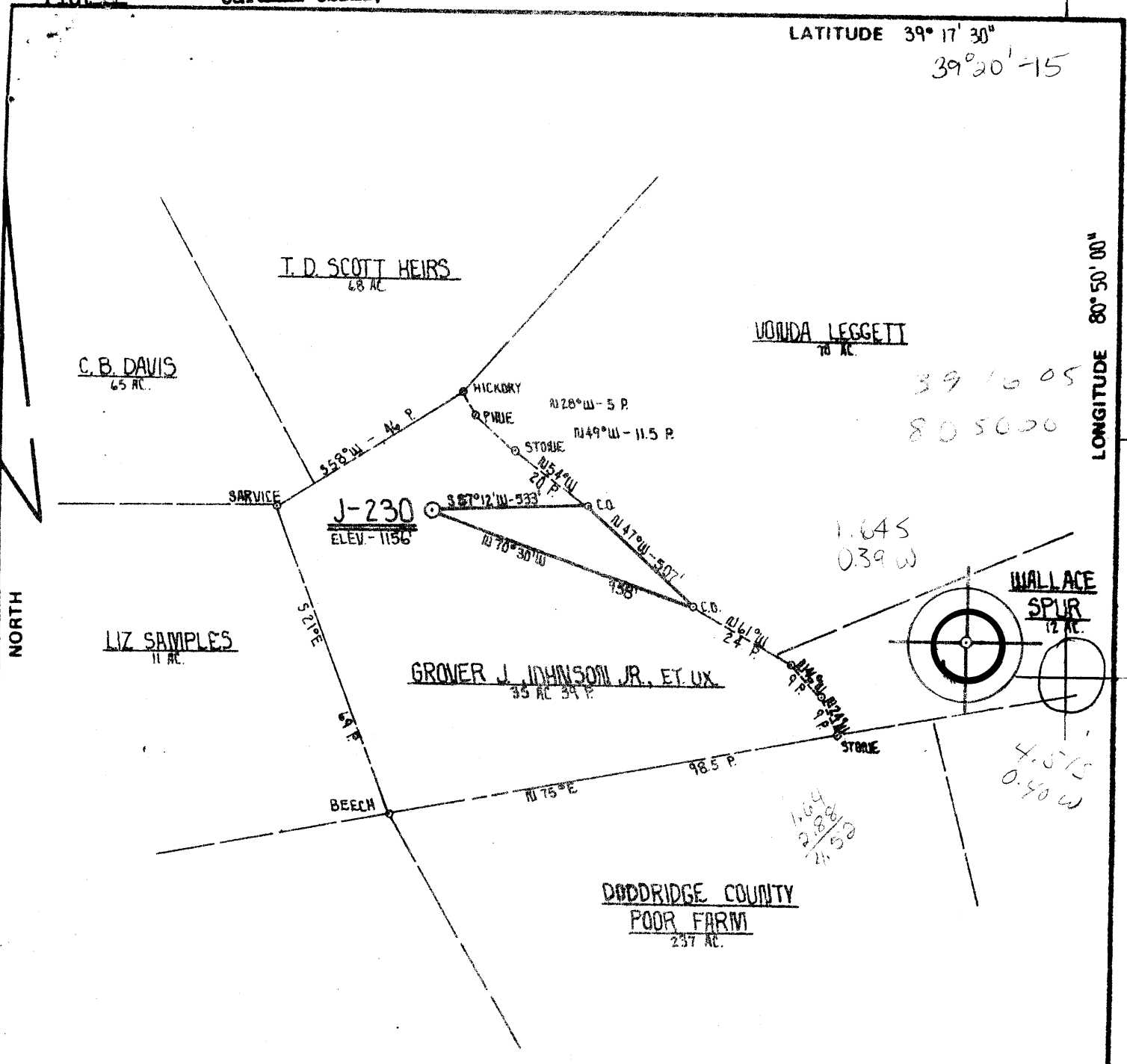


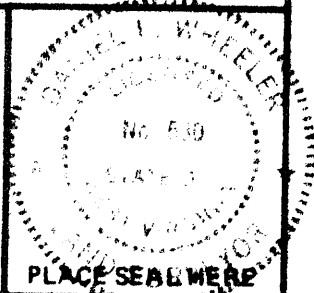
LATITUDE 39° 17' 30"  
39° 20' 15"

LONGITUDE 80° 50' 00"



FILE NO. \_\_\_\_\_  
 DRAWING NO. \_\_\_\_\_  
 SCALE 1" = 500'  
 MINIMUM DEGREE OF ACCURACY 1 PART IN 200  
 PROVEN SOURCE OF ELEVATION J. & J. ENTERPRISES, INC.  
 WELL # K-11-1 ELEV. - 1156'

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 FEBRUARY 29, 19 80  
 OPERATOR'S WELL NO. J-230  
 API WELL NO. 47-017-2617  
 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 1156' WATER SHED CLAYLICK RUN  
 DISTRICT CENTRAL COUNTY DODDRIDGE  
 QUADRANGLE WEST UNION 15 SC  
 SURFACE OWNER GROVER JAMES JOHNSON JR., ET UX ACREAGE 35 AC 39 P  
 OIL & GAS ROYALTY OWNER GROVER JAMES JOHNSON JR., ET UX LEASE ACREAGE 35 AC 39 P  
 LEASE NO. K-601  
 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 5,150'  
 WELL OPERATOR J. & J. ENTERPRISES, INC. DESIGNATED AGENT HARRY BARNETT  
 ADDRESS P.O. BOX 48 ADDRESS P.O. BOX 48  
 BUCKHARTON, W. VA. 26201 BUCKHARTON, W. VA. 26201

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

WELL OPERATOR'S REPORT 12  
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: 1156 Watershed: Clay Lick Run  
District: Central County: Doddridge Quadrangle: West Union 7.5'

WELL OPERATOR J & J Enterprises, Inc. DESIGNATED AGENT H.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 3-7, 19 80, OIL & GAS INSPECTOR FOR THIS WORK:  
(IF APPLICABLE: PLUGGING OF DRY HOLE OR CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED) Name Paul Garrett  
Address 321 Beech St.  
Clarksborg, WV 26301

GEOLOGICAL TARGET FORMATION: Alexander Depth \_\_\_\_\_ feet  
Depth of completed well, 5563 feet Rotary X / Cable Tools \_\_\_\_\_  
Water strata depth: Fresh, 52 feet; salt, 0 feet.  
Coal seam depths: 1670-73 Is coal being mined in the area? No  
Work was commenced 3-17, 19 80, and completed 3-23, 19 80

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		Kind	None
Conductor	11 3/4	4H-40	42	x		20	20	0 sks	Kind	None
Fresh water	8 5/8	ERW	23	x		1797	1797	410 sks		
Coal	8 5/8	ERW	23	x		1797	1797	410 sks	Sizes	
Intermediate										
Production Tubing	4 1/2	J-55	10	5		5406	5406		Setting	set
Liners									Perforations:	
									Top	Bottom
									5401	5431
									4616	5121
									4033	4250

RECEIVED

MAY - 2 1980

OIL & GAS DIVISION

DEPT. OF MINES

OPEN FLOW DATA  
Producing formation Alexander Pay zone depth 5400-5445 feet

Gas: Initial open flow, \_\_\_\_\_ Mcf/d Oil: Initial open flow, \_\_\_\_\_ Bbl/d  
Combined Final open flow, 442 Mcf/d Final open flow, \_\_\_\_\_ Bbl/d  
Time of open flow between initial and final tests, 4 hours

Static rock pressure, 1100 psig (surface measurement) after 48 hours shut in 4033-4250  
[If applicable due to multiple completion--] 4715-4717

Second producing formation Benson, Riley & Balltown Pay zone depth 5117-5121 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

JUN 4 1980

108-781

DETAILS OF PERFORATED INTERVALS, FRACTURING OF PERFORATIONS, PHYSICAL CHANGE, ETC.

Alexander: Perforating: 5401-5431 (14 holes)

Fracturing: 523 BBLs Fluid: 20,000 80/100 Sand: 30,000 20/40 wire mesh

Benson & Riley: 4616-5151 (10 holes)

Fracturing: 433 BBLs Fluid: 10,000 lbs 80/100 wire mesh: 30,000  
20/40 wire mesh

500 gal. Acid

Balltown: Perforating: 4033-4250 (15 holes)

Fracturing: 597 Bbls. fluid: 20,000 80/100 Sand: 40,000 20/40  
wire mesh: 500 gal. acid

WELL LOG

FORMATION	Color	Hard or Soft	Top Feet	Bottom Feet	Remarks Including indication of gas, oil, steam and salt water, coal, etc.
and & Red Rock			20	52	1" stream water @ 52'
hale			52	82	
and			82	150	
ed Rock			150	155	
and & Shale			155	173	
hale & Red Rock			173	203	
and & Shale			203	264	
hale & Red Rock			264	350	
and & Shale			350	515	
hale & Red Rock			515	620	
and			620	650	
and, Shale & Red Rock			650	680	
and & Shale			680	680	Damp @ 680'
and			680	854	
and & Shale			854	895	
and			895	930	
and & Shale			930	1030	
ed Rock & Shale			1030	1070	
and & Shale			1070	1080	
ed Rock & Shale			1080	1277	
and & Shale			1277	1320	
hite Sand			1320	1395	
and & Shale			1395	1510	
hite Sand			1510	1535	
and & Shale			1535	1670	
oal			1670	1673	
and & Shale			1673	1700	
and			1700	1800	
and & Shale			1800	1946	
and			1946	1980	
and & Shale			1980	2130	
ed Rock			2130	2133	
and & Shale			2133	2135	

(Attach separate sheets to complete as necessary.)

J & J Enterprises, Inc.

Well Operator

By Peter Battles  
Peter Battles  
Geologist

NOTE: Regulation 2.3216, 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."

FORMATION	Color	Hard or Soft	Top Feet	Bottom Feet	Including indication of gas, fresh and salt water, coal, oil and gas
Shale, Sand & Lime			2135	2189	
Big Lime			2189	2263	
Big Injun			2263	2311	Gas @ 2397 44/10 thru 1/2"
Shale			2311	2482	
Weir			2482	2604	
Sand & Shale			2604	3500	
Speechley			3560	3640	
Sand & Shale			3640	3965	
Balltown			3965	4134	
Sand & Shale			4134	4628	Gas @ 4342 90/10 thru 1/2"
Riley			4628	4658	
Sand & Shale			4658	5132	
Benson			5132	5138	
Shale			5138	5394	Gas @ 5369 90/10 thru 1/2" W/water
Alexander			5394	5460	
Shale			5460	5563	T.D. 5563

[08-78]

OIL AND GAS WELL PERMIT APPLICATION

Operator's Well No. J-230

API Well No. 47 - 017 2617  
State County Permit

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

LOCATION: Elevation: 1156 Watershed: Claylick Run  
District: Central County: Dodd Quadrangle: West Union 7.5'

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

DESIGNATED AGENT Harry Barnett  
Address P.O. Box 48  
Buckhannon, WV 26201

OIL & GAS ROYALTY OWNER Grover & Wilda Johnson  
Address Rt. # 1  
West Union, WV 26456

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

ACREAGE 35  
SURFACE OWNER Grover & Wilda Johnson  
Address Rt. # 1  
West Union, WV 26456  
ACREAGE 35

COAL OWNER(S) WITH DECLARATION ON RECORD:  
Name Grover Johnson  
Address Rt. # 1  
West Union, WV 26456  
Name \_\_\_\_\_  
Address \_\_\_\_\_

FIELD SALE (IF MADE) TO:  
Name \_\_\_\_\_  
Address \_\_\_\_\_

COAL LESSEE WITH DECLARATION ON RECORD:  
Name None  
Address \_\_\_\_\_  
**MAR - 7 1980**

OIL & 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 Oct. 23, 1978, to the undersigned well operator from Grover & Wilda Johnson

[If said deed, lease, or other contract has been recorded:]  
Recorded on Oct. 24, 1978, in the office of the Clerk of the County Commission of Dod County, West Virginia, in Oil & Gas Book 105 at page 241. 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 coal operator, coal owner(s), and coal lessee are hereby notified that any objections 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 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 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  
1608 WASHINGTON STREET EAST  
CHARLESTON, WV 25311  
TELEPHONE: (304) 348-3092

**BLANKET BOND**

J & J Enterprises, Inc.  
Well Operator  
By Peter Battles  
Its 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, Co.  
Address P.O. Box 48  
Buckhannon, WV 26201

GEOLOGICAL TARGET FORMATION, Alexander

Estimated depth of completed well, 5550 feet Rotary X / Cable tools      /  
Approximate water strata depths: Fresh, 250 feet; salt, 1740 feet.  
Approximate coal seam depths: None Is coal being mined in the area: Yes      / No X /

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	1 3/4"	H-40	42	X		30	30	0 Sks.	Kinds
Fresh water	5/8"	ERW	23	X		1800	1800	350 Sks	
Coal	5/8"	ERW	23	X		1800	1800	350 Sks	Sizes
Intermediate									
Production	1/2"	J-55	10.5	X		5480	5480	280 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 permit 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 operations under this permit are hereby approved of the W. Va. Code, the location is hereby approved for drilling. This permit shall expire if operations have not commenced by 11-10-80

*Robert H. [Signature]*  
Deputy Director - Oil & Gas Division

The following conditions must be satisfied 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 \_\_\_\_\_