



FILE NO. \_\_\_\_\_  
 DRAWING NO. \_\_\_\_\_  
 SCALE 1" = 500'  
 MINIMUM DEGREE OF ACCURACY 1 PART 101 200  
 PROVEN SOURCE OF ELEVATION INT. RT. 27 & RT. 25/13  
ELEV. 1046'

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) Wm. L. Whalen  
 R.P.E. \_\_\_\_\_ L.L.S. 530

PLACE SEAL HERE

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



DATE JANUARY 31 19 80  
 OPERATOR'S WELL NO. M-444-1  
 API WELL NO. 47-017-2604  
 STATE COUNTY PERMIT

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 1360' WATER SHED DRY FORK TO MEATHOUSE FORK  
 DISTRICT GREENBRIER COUNTY DODDRIDGE  
 QUADRANGLE RIG ISAAC 7.5' VADIS 15' NE  
 SURFACE OWNER MICHAEL J. DELAHANTY ACREAGE 25  
 OIL & GAS ROYALTY OWNER G.W. & PEARL HILL LEASE ACREAGE 25  
 LEASE NO. M-444

PROPOSED WORK: DRILL  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 5,150'  
 WELL OPERATOR J. J. ENTERPRISES, INC. DESIGNATED AGENT HARRY BARNETT  
 ADDRESS P.O. Box 48 BUCKHANNON, W. VA. 26201 ADDRESS P.O. Box 48 BUCKHANNON, W. VA. 26201

Date: 6-11, 19 80

Operator's Well No. J-86  
API Well No. 47-017-2604  
State County Permit

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

WELL OPERATOR'S REPORT 7  
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: 1360 Watershed: Dry Fork of Meathouse Fork  
District: Greenbrier County: Doddridge Quadrangle: Big Issac

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

PERMIT ISSUED ON 2-5, 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,  
Clarksburg, WV 26301

GEOLOGICAL TARGET FORMATION: Alexander Dept 5465-5540 feet  
Depth of completed well, 5663 feet Rotary  Cable Tools   
Water strata depth: Fresh 400 feet; salt, 0 feet.  
Coal seam depths: 0 Is coal being mined in the area? No  
Work was commenced 2-20, 19 80, and completed 3-6, 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	Kinds
Conductor	13/4	H-40	42	x		0	0	0 sks.	None
Fresh water	8 5/8	BERW	23	x		1696.25	1696.25	325 sks	
Coal	8 5/8	BERW	23	x		1696.25	1696.25	325 sks	Sizes
Intermediate									
Production Tubing	4 1/2	J-55	10.5	x		5213.05	5213.05	320 sks	Depths set
Liners									Perforations:
									Top Bottom
									3823 4103
									4379 4393
									5131 5134

OPEN FLOW DATA

Producing formation Benson Pay zone depth 5130-5145 feet  
Gas: Initial open flow, \_\_\_\_\_ Mcf/d Oil: Initial open flow, \_\_\_\_\_ Bbl/d  
Combined Final open flow, 179 Mcf/d Final open flow, \_\_\_\_\_ Bbl/d  
Time of open flow between initial and final tests, 6 hours  
Static rock pressure, 950 psig (surface measurement) after 96 hours shut in

[If applicable due to multiple completion--] 3823-3980  
Second producing formation Bradford & Balltown Pay zone depth 4101-4393 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

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

Benson: Perforations: 5131-34 (12 holes)  
Fracturing: 200 sks. 80/100 sand: 300 sks 20/40 sand: 600 Bbls. fluid.

Bradford & Balltown: Perforations: 4393-4379 (8 holes)  
Fracturing: 300 sks. 80/100 sand: 500 sks. 20/40 sand: 750 gal. Acid: 600 Bbls. fluid.

WELL LOG

FORMATION	Color	Hard or Soft	Top Feet	Bottom Feet	Remarks Including Indication of Gas, Oil, and Salt Water
Top Soil			0	5	
Red Rock			5	35	
Sand & Shale			35	45	
Sand			45	110	
Shale			110	140	
Shale & Red Rock			140	210	
Sand & Shale			210	390	
Red Rock			390	450	Damp @ 400' w/ 1/4" stream
Sand & Shale			450	530	
Red Rock & Shale			530	800	
Sand & Shale			800	1370	
Sand			1370	1470	
Sand & Shale			1470	1560	
Shale			1560	1620	
Sand			1620	1690	Damp @ 1630
Sand & Shale			1690	2215	
Big Lime			2215	2300	
Sand & Shale			2300	2600	Gas @ 2347 160/10 thru 1" w/water
Shale			2600	2820	Gas @ 2535 98/10 thru 1" w/water
Sand & Shale			2820	3070	Gas @ 3162 6/10 thru 7" w/water
Shale			3070	3200	
Sand & Shale			3200	3650	
Shale			3650	3790	
Sand & Shale			3790	3823	Gas @ 3847 10/10 thru 2" w/water
Bradford			3823	4103	Gas @ 4320 120/10 thru 1" w/water
Shale			4103	4210	Gas @ 5006 140/10 thru 1" w/water
Sand & Shale			4210	4379	
Balltown			4399	4380	
Sand & Shale			4380	4540	
Sand & Shale			4540	5130	Gas @ 5569 10/10 thru 2" w/water
Benson			5130	5145	
Sand & Shale			5145	5465	T.D. 5663
Alexander			5465	5540	
Sand & Shale			5540	5663	

(Attach separate sheets as complete as necessary)

J & J Enterprises, Inc.

Well Operator

By

*Peter Battles*  
Peter Battles

Its

Geologist

NOTE: Regulation 2.02(i) 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. M-444-#1

API Well No. 47 - 017 - 2604  
State County Permit

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

LOCATION: Elevation: 1360 Watershed: Dry Fork of Meathouse Fork  
District: Greenbrier County: Doddridge Quadrangle: Big Isaac 7 1/2

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

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

OIL & GAS ROYALTY OWNER G. W. and Pearl Hill  
Address Greenwood,  
West Virginia 26360

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

ACREAGE 25

COAL OWNER(S) WITH DECLARATION ON RECORD:

SURFACE OWNER Michael J. Delahanty  
Address Route 3  
Salem, West Virginia 26426  
ACREAGE 25

Name Virginia A. Tetrick  
Address Union Center West  
Clarksburg, W. Va. 26301

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

Name \_\_\_\_\_  
Address \_\_\_\_\_

COAL LESSEE WITH DECLARATION ON RECORD:  
Name None

OIL & GAS INSPECTOR TO BE NOTIFIED  
Name Paul Garrett  
Address 321 Beech Street  
Clarksburg, W. Va. 26301

Address \_\_\_\_\_

RECEIVED  
FEB - 5 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 July 25, 1979, to the undersigned well operator from G. W. Hill

[If said deed, lease, or other contract has been recorded:]

Recorded on August 1, 1979, in the office of the Clerk of the County Commission of Doddridge County, West Virginia, in Oil & Gas Lease Book 109 at page 601. A permit is requested as follows:

PROPOSED WORK: Drill X / Drill deeper \_\_\_ / Redrill \_\_\_ / Fracture or stimulate X /  
Install or re-install completion \_\_\_ / Perforate new formation \_\_\_ /  
Other technical change in well (specify) \_\_\_\_\_

--- attached to the work order on the reverse side hereof.

The undersigned well operator, coal owner(s), and coal lessee are hereby notified that any other permits or orders that 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.

Two copies of this Permit Application and the enclosed plat and reclamation plan have been mailed by registered mail to be 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  
1600 WASHINGTON STREET EAST  
CHARLESTON, WV 25311  
TELEPHONE: (304) 348-3092

BLANKET BOND

J & J ENTERPRISES, INC.  
Well Operator

By H. L. Barnett  
Its H. L. BARNETT DESIGNATED AGENT

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, W. Va. 26201

GEOLOGICAL TARGET FORMATION, Alexander

Estimated depth of completed well, 5700 feet Rotary X / Cable tools      /  
Approximate water strata depths: Fresh, 90 feet; salt, 0 feet.  
Approximate coal seam depths: 0 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	11 3/4	H-40	42	X		30	0	0 sks.	Kinds None
Fresh water	8 5/8	ERW	23	X		1500	1500	300 sks.	
Coal	8 5/8	ERW	23	X		1500	1500	300 sks.	Sizes
Intermediate									
Production	4 1/2	J-55	10.5	X		5650	5650	250 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 a part of the work for which a permit is sought and is not a separate well. **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 10-19-80.

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

This permit is valid only if the coal operator and by any coal owner on coal lands has been approved by the Department under Code § 22-4-20, if the permit is to be used for the purpose of receipt thereof:

**WARRANTY**

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 \_\_\_\_\_