





FILE NO. DE #1 PAGE 75  
 DRAWING NO. \_\_\_\_\_  
 SCALE 1" = 500'  
 MINIMUM DEGREE OF ACCURACY 1 PART IN 200  
 PROVEN SOURCE OF ELEVATION INTERSECTION RT. 3013 AND 3016 ELEVATION 1741'

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 B. Stender*  
 R.P.E. \_\_\_\_\_ L.L.S. 530

PLACE SEAL HERE

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

STATE OF WEST VIRGINIA  
 DEPARTMENT OF MINES  
 OIL AND GAS DIVISION



DATE OCTOBER 30<sup>th</sup> 19 80  
 OPERATOR'S WELL NO. B-388  
 API WELL NO. 47-001  
 STATE \_\_\_\_\_ COUNTY \_\_\_\_\_ PERMIT 1491

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL  
 (IF "GAS") PRODUCTION X STORAGE DEEP SHALLOW X  
 LOCATION: ELEVATION 1775' WATER SHED TYGART VALLEY RIVER  
 DISTRICT PHILIPPI COUNTY BARBOUR  
 QUADRANGLE AUDRA T5' Phillips 15' EC  
 SURFACE OWNER LEE KETCHUM ACREAGE 37 AC.  
 OIL & GAS ROYALTY OWNER LEE KETCHUM LEASE ACREAGE 34 AC.  
 LEASE NO. \_\_\_\_\_  
 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 BENSON ESTIMATED DEPTH 4450'  
 WELL OPERATOR J. and J. ENTERPRISES, INC. DESIGNATED AGENT BERRY ENERGY CONSULTANTS and MANAGERS INC.  
 ADDRESS BERRY ENERGY CONSULTANTS and MANAGERS INC. ADDRESS SUITE 309 PROFESSIONAL BUILDING  
SUITE 309 PROFESSIONAL BLDG. CLARKSBURG, W. VA. 26301 CLARKSBURG, WEST VIRGINIA 26301



STATE OF WEST VIRGINIA  
DEPARTMENT OF MINES

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JUL 27 1981

**Oil and Gas Division  
WELL RECORD**

OIL & GAS DIVISION  
DEPT. OF MINES

Quadrangle Andra 7.5

Permit No. Bar-1491

Cable \_\_\_\_\_ Gas X  
Recycling \_\_\_\_\_ Comb. \_\_\_\_\_  
Water Flood \_\_\_\_\_ Storage \_\_\_\_\_  
Disposal \_\_\_\_\_ (Kind)

J & J Enterprise Inc. %  
Company Berry Energy Consultants & Mgrs.  
Address P.O. Box 5, Clarksburg, W. Va. 26301  
Farm Lee Ketchum Acres 34  
Location (waters) Tygart Valley River  
Well No. B-388 Elev 1775'  
District Phillippi County Barbour  
The surface of tract is owned in fee by \_\_\_\_\_  
Lee Ketchum  
Address Rt. #1, Phillippi, WVa.  
Mineral rights are owned by \_\_\_\_\_ Same \_\_\_\_\_  
Drilling Commenced 6/24/81  
Drilling Completed 6/31/81  
Initial open flow 66.66 m cu. ft. \_\_\_\_\_ bbls.  
Final production 539M cu. ft. per day \_\_\_\_\_ bbls.  
Well open 4 hrs. before test 1,110# RP.  
Well treatment details: Fraced 7/16/81

Casing and Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft. (Sks.)
Size 20-16			
Cond. <del>XXXX</del> 11-3/4"	none		
9 5/8			
8 5/8			
7			
5 1/2			
4 1/2	5050		120 Sks. Cement
3			320 Sks 50/50 P
2			
Liners Used			

Attach copy of cementing record. 1st. - 1750#

(1) Elk Perf.: 4916-4925 - 12 holes - 10,000, 80/100: 60,000 - 20/40 - 686 Bbls. water  
(2) Elk Perf.: 4450-4454 - 4 holes - 4470-4472 - 8 holes, 15,000-50/100, 65,000 - 20/40  
645 Bbls. water

(3) Benson Perf.: 3935-3943 - 12 holes: 15,000, 80/100, 75,000, 20/40 - 759 Bbls. water  
1st - 1300#

Raffles - 4539 - 35/16" - 3991 - 39/16"  
Coal was encountered at 150-152 & 245-253' Feet \_\_\_\_\_ Inches \_\_\_\_\_  
Fresh water 320' Feet \_\_\_\_\_ 1 1/2" stream Salt Water \_\_\_\_\_ none \_\_\_\_\_ Feet \_\_\_\_\_  
Producing Sand 1st & 2nd Elk & Benson \_\_\_\_\_ Depth \_\_\_\_\_ 5050'

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	Remarks
Cond.			0	11		
Fill & Shale			11	30		
Sand & Shale			30	50		
Sand			50	120		
Sand & Shale			120	150		Hole Damp @ 95'
Coal			150	152		
Sand & Shale			152	165		
Balck Shale & Coal			165	210		
Coal			210	253		
Sand			253	370		
Sand & Shale			370	450		
Sand			450	500		
Shale & Sand			500	713		
Shale			713	840		
Red Rock			840	900		
White Sand			900	1075		
Red Rock & Shale			1075	1160		
Big Lime & Big Injun			1160	1425		
Sand & Shale			1425	1515		
Shale			1515	2155		
Sand			2155	2235		
Sand & Shale			2235	2535		
Shale			2535	2735		
Sand & Shale			2735	2935		
Shale			2935	3620		
					Gas Ck @ 3020' - No Show	

Water @ 320' - 1 1/2"

Gas Ck @ 2535' - No Show

Gas Ck @ 3020' - No Show

\* Indicates Electric Log tops in the remarks section.

(over)

AUG 11 1981

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	Remarks
Sand & Shale			3620	3650		
Shale			3650	3900		
Benson			3900	3935		
Sand & Shale			3935	4570		Gas Ck @ 3952' - 40/10 - 1" w/water
Sand			4570	5210		Gas Ck @ 4694' - 4/10 - 2" w/water
Brown sand	<i>ELK</i>		5210	5250		
Sand & Shale			5250	5408		Gas Ck @ 5408' - 6/10 - 2" w/water

J & J Enterprise Inc. %  
 Berry Energy Consultants & Mgrs.  
 Suite 309 Professional Bldg.  
 P.O. Box 5  
 Clarksburg, W. Va. 26301

BY:  \_\_\_\_\_

Date \_\_\_\_\_ . 19\_\_

APPROVED \_\_\_\_\_ . Owner

By \_\_\_\_\_  
 (Title)



RECEIVED  
OCT 10 1980

STATE OF WEST VIRGINIA  
DEPARTMENT OF MINES

OIL & GAS DIVISION  
DEPT. OF MINES

# Oil and Gas Division OIL AND GAS WELL PERMIT APPLICATION

TO THE DEPARTMENT OF MINES,  
Charleston, W. Va.

DATE November 18, 1980  
 of J & J Enterprises, Inc.  
 Surface Owner Lee Ketchum Company c/o Berry Energy Consultants, Inc.  
 Address Rt. #1, Phillippi, WV Address Clarksburg, W. Va.  
 Mineral Owner Same Farm Lee Ketchum Acres 34  
 Address \_\_\_\_\_ Location (waters) Tygart Valley River  
 Coal Owner Hillman Coal & Coke Corporation Well No. B-388 Elevation 1775'  
 Address 1900 Grant Building, Pittsburgh, Pa. District Phillippi County Barbour  
 Coal Operator None Quadrangle AUDRA 7.5'  
 Address \_\_\_\_\_

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 8-30-81

*J. H. Berry*  
Deputy Director - Oil & Gas Division  
GENTLEMEN:

INSPECTOR Robert Stewart  
 TO BE NOTIFIED  
 ADDRESS P.O. Box 345, Jane Lew, W. Va.  
 PHONE 884-7782

The undersigned well operator is entitled to drill upon the above named farm or tract of land for oil and gas, having fee title thereto, (or as the case may be) under grant or lease dated 1-15-80 and recorded on the 19 by Lee Ketchum made to W. B. Berry County, Book 83 Page 551  
19 80 in Barbour County, Book 83 Page 551  
 XXX NEW WELL DRILL DEEPER REDRILL FRACTURE OR STIMULATE  
OIL AND GAS WELL ORIGINALLY DRILLED BEFORE JUNE 5, 1969.

The enclosed plat was prepared by a registered engineer or licensed land surveyor and all coal owners and/or operators have been notified as of the above date.

The above named coal owners and/or operator are hereby notified that any objection they wish to make, or are required to make by Section 3 of the Code, must be received by, or filed with the Department of Mines within ten (10) days.

Copies of this notice and the enclosed plat were mailed by registered mail, or delivered to the above named coal operators or coal owners at their above shown respective address Same day before, or on the same day with the mailing or delivery of this copy to the Department of Mines at Charleston, West Virginia J & J Enterprises, Inc.

Very truly yours, J & J Enterprises, Inc.  
 (Sign Name) J & J Enterprises, Inc.  
 Well Operator

PLEASE SUBMIT COPIES OF ALL GEOPHYSICAL LOGS DIRECTLY TO:  
 OFFICE OF OIL AND GAS 308-309 Professional Building  
 1615 Washington Street, East Clarksburg,  
 Charleston, West Virginia City or Town  
 Area Code 304 -348-3092 348-3096 West Virginia State

\*SECTION 3 . . . . . If no objections are filed or found by the Department of mines, within said period of ten days from the receipt of notice and plat by the department of mines, to said proposed location, the department shall forthwith issue to the well operator a permit reciting the filing of such plat, that no objections have been made by the coal operators or found thereto by the department and that the same is approved and the well operator authorized to proceed.

BLANKET BOND

\*I have read and understand the reclamation requirements as set forth in Chapter 22, Article 4, Section 12-b and will carry out the specified requirements.

Signed by \_\_\_\_\_ 47-001-1491 PERMIT NUMBER

THIS IS AN ESTIMATE ONLY  
 ACTUAL INFORMATION WILL BE SUBMITTED ON OG-10 UPON COMPLETION

PROPOSED WORK ORDER TO XXX DRILL                      DEEPEN                      FRACTURE-STIMULATE  
 DRILLING CONTRACTOR: (If Known)                      RESPONSIBLE AGENT:                       
 NAME S. W. Jack Drilling Company NAME W. B. Berry  
 ADDRESS Buckhannon, W. Va. ADDRESS Clarksburg, W. Va.  
 TELEPHONE 472-9403 TELEPHONE 622-3450  
 ESTIMATED DEPTH OF COMPLETED WELL: 4,501 ROTARY XXX CABLE TOOLS                       
 PROPOSED GEOLOGICAL FORMATION: Banson  
 TYPE OF WELL: OIL                      GAS XXX COMB.                      STORAGE                      DISPOSAL                       
 RECYCLING                      WATER FLOOD                      OTHER                     

TENTATIVE CASING PROGRAM:

CASING AND TUBING SIZE	USED FOR DRILLING:	LEFT IN WELL	CEMENT LINE UP OR SACKS - CUBIC FT.
20 - 16			
<del>XXXXXX</del> 11-3/4"	30'	30'	To surface
9 - 5/8			
8 - 5/8	1000'	1000'	To surface
7			
5 1/2			440
4 1/2	4400'	4400'	250 sks at or near regl. Perf. Top by rule 1501
3			Perf. Bottom
2			Perf. Bottom
Lines			Perf. Bottom

APPROXIMATE FRESH WATER DEPTHS 85' FEET                      SALT WATER None FEET                       
 APPROXIMATE COAL DEPTHS Various IS COAL BEING MINED IN THE AREA? No BY WHOM?                     

TO DRILL:                       
 SUBMIT FIVE (5) COPIES OF OG - 1, \$100.00 PERMIT FEE, PERFORMANCE BOND AND PERMANENT COPY OF PLAT                     

TO DRILL DEEPER OR REDRILL:                       
 SUBMIT FIVE (5) COPIES OF OG - 1, SHOWING ORIGINAL PERMIT NUMBER AND PERFORMANCE BOND, ON WELLS DRILLED PRIOR TO 1929, A PERMANENT COPY OF THE PLAT AND THE ORIGINAL WELL RECORD MUST ALSO BE SUBMITTED.

TO FRACTURE - STIMULATE:                       
 OIL AND/OR GAS WELL ORIGINALLY DRILLED BEFORE JUNE 5, 1929, FIVE (5) COPIES OG - 1, PERFORMANCE BOND, PERMANENT PLAT AND ORIGINAL WELL RECORD.  
 OIL AND/OR GAS WELL ORIGINALLY DRILLED ON AND/OR AFTER JUNE 5, 1929, FIVE COPIES OG - 1, SHOWING ORIGINAL PERMIT NUMBER, AND PERFORMANCE BOND.  
 Required forms must be filed within ninety (90) days of completion for bond release. Inspector to be notified twenty-four (24) hours in advance.

The following waiver must be completed by the coal operator if the permit is to be issued within ten days of receipt thereof.

WALVER: I the undersigned, Agent for                      Coal Company, Owner or Operator of the coal under this lease have examined and place on our mine maps this proposed well location.

We the                      Coal Company have no objections to said well being drilled at this location, providing operator has complied with all rules and regulations in Articles 4, 5, and 7, Chapter 22 of the West Virginia Code.

For Coal Company

Official Title