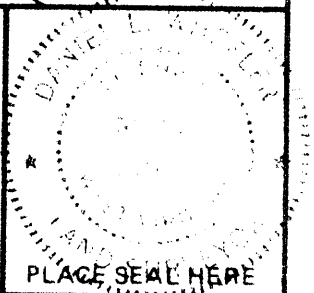


FILE NO. _____
 DRAWING NO. _____
 SCALE 1" = 500'
 MINIMUM DEGREE OF ACCURACY 1 PART IN 200
 PROVEN SOURCE OF ELEVATION INT. RT. 11 AND 26
ELEVATION 755'

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. Woodley
 R.P.E. _____ L.L.S. 530



(H) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS
 FORM IV-6 (878)

DATE JULY 29th 19 80
 OPERATOR'S WELL NO. J-178
 API WELL NO. _____
47 - 017 - 2811
 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 1050' WATER SHED ARNOLD'S CREEK
 DISTRICT CENTRAL COUNTY DODDRIDGE
 QUADRANGLE WEST UNION 15' & 15' SE
 SURFACE OWNER LAWRENCE JAMES ACREAGE _____
 OIL & GAS ROYALTY OWNER ALEXANDER DOAK HEIRS LEASE ACREAGE 80 Ac.
 LEASE NO. H-14
 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 REPIG ___
 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 Central Station (91)

AUG 26 1980

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

WELL OPERATOR'S REPORT IS
OF
DRILLING, FRACTURING AND/OR STIMULATION, OR PHYSICAL CHANGE

WELL TYPE: Oil / Gas / Liquid Injection / Waste Disposal
(If "Gas", Production / Underground storage / Deep / Shallow
LOCATION: Elevation: 1050 Watershed: Arnolds Creek
District: Central County: Doddridge Quadrangle: West Union

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 8/1, 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 Depth 5135-5200 feet
Depth of completed well, 5409 feet Rotary / Cable Tools
Water strata depth: Fresh 47.85 feet; salt 1405-70 feet.
Coal seam depths: None Is coal being mined in the area? No
Work was commenced 12/23, 19 80, and completed 12/31, 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
Condenser	1 1/4	H-40	42	x		34	34	0 sks.	Winds
Fresh water	8 5/8	ERW	23	x		1501.25	1501.25	335 sks.	
Coal	8 5/8	ERW	23	x		1501.25	1501.25	335 sks.	Sizes
Intermediate									
Production	4 1/2	J-55	10.5	x		5353.10	5353.10	640 sks.	Depths set
Tubing									
Liners									Perforations:
									Top Bottom
									5229 5255
									4937 4940
									4515 4518
									2661 2664
									2297 2325

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OPEN FLOW DATA

OIL & GAS DIVISION

DEPT. OF MINES

Producing formation Alexander 5229-5255 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, 800 psig (surface measurement, after 96 hours shut in)
[If applicable due to multiple completion--]
Second producing formation Benson, Riley, Gordon, & Weir Pay zone depth 2297-2325 Weir
2661-2664 Gordon
4515-4518 RIL
4937-4940 BUSH
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)

(Continue on reverse side)

DETAILS OF PERFORATED INTERVALS, FRACTURING OR STOP LATHING, PHYSICAL CHANGE, ETC.

Alexander: Perforations: 5229-5255 (12 holes)
Fracturing: 2000 lbs. 80/100 sand: 40,000 lbs. 20/40 sand: 600 Bbls. fluid.

Benson: Perforations: 4937-40 (13 holes)
Fracturing: 10,000 lbs. 80/100 sand: 40,000 lbs. sand: 500 Bbls. fluid.

Riley: Perforations: 4515-18 (13 holes)
Fracturing: 10,000 lbs. 80/100 sand: 28,000 lbs. 20/40 sand: 450 Bbls. fluid.

Gordon: Perforations: 2661-64 (8 holes)
Fracturing: 10,000 lbs. 80/100 sand: 28,000 lbs. 20/40 sand: 450 Bbls. fluid.

Weir: Perforations: 2246-62 (6 holes)
Fracturing: 15,000 lbs. 80/100 sand: 35,000 lbs. 20/40 sand: 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
Fill			0	5	
Sand & Red rock			5	25	
Sand & shale			25	90	Water @ 47'
Sand, shale, & red rock			90	170	
Red rock, sand & shale			170	580	Damp @ 85
Sand, red rock & shale			580	630	
Sand & shale			630	840	
Red rock, shale & sand			840	915	Wet @ 1480
Red rock, shale & sand			915	1170	
Salt sand			1170	1195	Gas ck @ 2181 34/10-1/2" w/water 10,947 cu.ft.
Sand & shale			1195	1405	
Salt sand			1405	1470	Gas ck @ 20/10-1/2" w.water 8,419 cu.ft.
Sand & shale			1470	1888	
Big Lime			1888	1990	Gas ck @ 4294 No show
Big Injun			1990	2095 ✓	
Sand & shale			2095	2246	Gas ck @ 4543 8/10-1/2" w/water 5,324 cu.ft.
Weir			2246	2262	
Sand & shale			2262	2661	Gas ck @ 5007 8/10-1/2" w/water 5,324 cu.ft.
Gordon			2661	2664	
Sand & shale			2664	3350	
Warren			3350	3400 -	
Sand & shale			3400	4515	
Riley			4515	4518	
Sand & shale			4518	4885	
Benson			4885	4940	
Sand & shale			4940	5135	
Alexander			5135	5200	
Shale & brown sand			5200	5270	
Shale			5270	5409 TD	

(Attach separate sheets to complete as necessary)

J & J Enterprises, Inc.

Well Operator

By

Peter Battles

Its

Peter Battles Geologist

NOTE: Regulation 8.03(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."

Date: 7/31/1980

[08-78]

OIL AND GAS WELL PERMIT APPLICATION

Operator's Well No. J-178

API Well No. 47 - 017 281
State County Pa

WELL TYPE: Oil / Gas X /
(If "Gas", Production X / Underground storage / Deep / Shallow X /)
LOCATION: Elevation: 1050 Watershed: Arnold's Creek
District: Central County: Doddridge Quadrangle: West Union 7.5

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

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

OIL & GAS ROYALTY OWNER Alexander Doak Heirs
Address 303 Church St. 3240 E. 69th
West Union Tulsa Oklahoma

COAL OPERATOR None
Address

ACREAGE 80 74136
SURFACE OWNER Lawrence James
Address Greenwood W.V. 26360
ACREAGE

COAL OWNER(S) WITH DECLARATION ON RECORD:
Name Alexander Doak Heirs
Address 303 Church St.
West Union

FIELD SALE (IF MADE TO):
Name
Address

COAL LESSEE WITH DECLARATION ON RECORD:
Name None
Address

OIL & GAS INSPECTOR TO BE NOTIFIED
Name Paul Garrett
Address 321 Beech St.
Clarksburg W.V. 26301

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AUG - 1 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 / other contract X / dated 5/6, 1980, to the undersigned well operator from Justin Henderson

[If said deed, lease, or other contract has been recorded:]
Recorded on 5/13, 1980, in the office of the Clerk of the County Commission of Doddridge County, West Virginia, in Lease Book 115 at page 41. 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 objection 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 plot 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
1615 WASHINGTON STREET EAST
CHARLESTON, WV 25311
TELEPHONE: (304) 528-3092

BLANKET BOND

J&J Enterprises, Inc
Well Operator

By
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 W.V. 26201

GEOLOGICAL TARGET FORMATION, Alexander

Estimated depth of completed well, 5400 feet Rotary Cable tools
Approximate water strata depths: Fresh, 25 feet; salt, 1000 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	1 3/4	H40	42	X		30	30		Kinds
Fresh water	5/8	ERW	23	X		1200	1200	350sks	
Coal									Sizes
Intermediate									
Production	1 1/2	J55	10.5	X		5350	5350	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 drilling within 200 feet of the proposed well.

THIS PERMIT MUST BE POSTED AT THE WELL SITE. It is not to 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 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 4-7-81.

Fred Burdette
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 _____