



FILE NO. D.E. 2-72
 DRAWING NO. VAR. 3-56
 SCALE 1" = 500'
 MINIMUM DEGREE OF ACCURACY 1 PART IN 200
 PROVEN SOURCE OF ELEVATION ROAD INTERSECTION 2680' ± WEST OF LOCATION ELEVATION 873'

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) Samuel B. Wheeler
 R.P.E. _____ L.L.S. 530



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS
 FORM IV-B (5-78)



DATE OCTOBER 1ST, 19 80
 OPERATOR'S WELL NO. J-286
 API WELL NO. _____
47 - 017 - 2856
 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 ___ STORAGE ___ DEEP ___ SHALLOW X
 LOCATION: ELEVATION 1120' WATER SHED RIGHT FORK OF ARNOLD CREEK
 DISTRICT WEST UNION COUNTY DODDRIDGE
 QUADRANGLE OXFORD 7.5' Ho. Brook 15' NE
 SURFACE OWNER WILLIAM D. FALKE ACREAGE 25 Ac.
 OIL & GAS ROYALTY OWNER SAMUEL PERINE ET AL. LEASE ACREAGE 118.29 Ac.
 LEASE NO. K-21
 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 5350
 WELL OPERATOR J. & J. ENTERPRISES INC. DESIGNATED AGENT HARRY BARNETT
 ADDRESS P.O. BOX 48 BUCKHANNON WEST VIRGINIA 26201 ADDRESS P.O. BOX 48 BUCKHANNON WEST VIRGINIA 26201
 NOV 17 1980
 6-6 Straight Fork of Arnold Creek (133)

RECEIVED
NOV 24 1980

Date: 11/21, 19 80

Operator's Well No. J-286

API Well No. 47 - 017 - 2856
State County Permit

Oil & Gas Division
DEPT. OF MINES OF WEST VIRGINIA
DEPARTMENT OF MINES, OIL AND GAS DIVISION

WELL OPERATOR'S REPORT
3P
DRILLING, FRACURING 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: 1120 Watershed: Right Fork of Arnolds Creek
District: West Union County: Doddridge Quadrangle: Oxford 7.5'

WELL OPERATOR J & J Enterprises, Inc. DESIGNATED AGENT H.L. Barnett
Address Box 48 address Box 48
Buckhannon, WV 26201 Buckhannon, WV 26201

PERMITTED WORK: Drill x / Convert / Drill deeper / Retract / Fracture or stimulate X
Plug off old formation / Perforate new formation
Other physical change in well (specify)

PERMIT ISSUED ON 10/17, 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 5150-5215 feet
Depth of completed well, 5342 feet Rotary X / Cable Tools
Water strata depth: Fresh, 1360 feet; salt, 1385 feet.
Coal seam depths: None Is coal being mined in the area: NO
Work was commenced 10/25, 19 80, and completed 10/31, 19 80

CASING AND TUBING PROGRAM

CASING OR TUBING TYPE	SPECIFICATIONS				FOOTAGE INTERVALS		CEMENT FILL-UP OR SACKS (Cubic Feet)	REMARKS	
	Size	Grade	Weight per ft	New	Used	For drilling			Left in well
Conductor	11 3/4	H-40	42	X		34	0	0 sks	Runs
Fresh water	8 5/8	ERW	23	X		1492.20	1492.20		
Coal	8 5/8	ERW	23	X		1492.20	1492.20		Sizes
Intermediate									
Production	4 1/2	J-55	10.5	X		5281.75	5281.75	440 sks.	Perforations set
Tubing									
Liners									Perforations:
									Top Bottom

OPEN FLOW DATA

Producing formation Alexander Pay zone depth 5157-5190 feet
Gas: Initial open flow, Mcf/d Oil: Initial open flow, Bbl/d
Combined Final open flow, 2,167 Mcf/d Final open flow, Bbl/d
Time of open flow between initial and final tests, 4 hours
Static rock pressure, 1600 psig (surface measurement) after 96 hours shut in
[If applicable due to multiple completion--]
Second producing formation Warren Pay zone depth 4019-4132 feet
Bradford, Balltown, Speechley & Pay zone depth 3803-3813 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

[08-78]

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

Alexander: Perforations: 5157-5190 (15 holes)
 Fracturing: 280 sks. 80/100 sand: 560 sks. 20/40 sand: 300 lbs. Citric Acid:
 700 Bbls fluid.

Bradford: Perforations: 4019-4132 (12 holes)
 Fracturing: 100 sks. 80/100 sand: 280 sks. 20/40 sand: 500 gal. Acid: 500 Bbls.
 Fluid

Balltown: Perforations: 3716-3813 (11 holes)
 Fracturing: 100 sks. 80/100 sand: 280 sks. 20/40 sand: 500 gal. Acid:
 500 Bbls. fluid.

Speechley & Warren: Perforations: 3256-3304 (12 holes)
 Fracturing: 100 sks. 80/100 sand: 280 sks. 20/40 sand: 500
 gal. Acid: 500 Bbls. fluid.

WELL LOG

FORMATION	Color	Hard or Soft	Top Feet	Bottom Feet	REMARKS Including indication of all gas and salt water, coal, oil, etc.
Fill			0	15	
Shale			15	40	
Sand			40	73	
Red rock & shale			73	95	Damp @ 70'
Red rock, sand & shale			95	125	Damp @ 180'
Red rock, sand & shale			125	170	Damp @ 300'
Red rock, sand & shale			170	345	
Red rock & sand			345	420	
Red rock, sand & shale			420	540	
Sand, shale & red rock			540	720	
Shale & red rock			720	755	
Red rock, sand & shale			755	850	
Red rock, sand & shale			850	1385	1/2-1/2" stream @ 1360'
Salt sand			1385	1420	
Sand & shale			1420	1563	Oil @ 1950
Sand & shale			1563	1825	Gas ck @ 2029 -50/10-1/2" w/water 13900 cu. ft.
Little lime & shale			1825	1850	
Sand & shale			1850	1860	Gas ck @ 4007 -24/10-1/2" w/water 9640 cu. ft.
Big Lime			1860	1950	
Big Injun			1950	1980	Gas ck @ 4721 20/10-2" w/water 189000 cu. ft.
Sand & shale			1980	3256	
Speechley & Warren			3256	3304	Gas ck @ 4908 - 18/10-2" w/water 179,000 cu. ft.
Sand & shale			3304	3716	
Balltown			3716	3813	
Sand & shale			3813	4019	
Sand & shale			4019	4132	
Benson			4132	4870	
Shale			4870	4875	
Sand			4875	5150	
Alexander			5150	5215	
Sand & shale			5215	5342 T.D.	

(Attach separate sheets to complete as necessary.)

J & J Enterprises, Inc.
 Well Operator
 By: Peter Battles
 Peter Battles
 Geologist

NOTE: Regulation 2.02(f) provides as follows:
 "The term 'log' or 'well log' shall mean a systematic, detailed geologic 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- 286

API Well No. 47 - 017-2856
State County Per

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

LOCATION: Elevation: 1120 Watershed: Right Fork of Arnolds Creek
District: West Union County: Doddridge Quadrangle: Oxford 7.5'

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

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

OIL & GAS ROYALTY OWNER Samuel Perine
Address Rt. 3, 50714 Duke Rd.
East Liverpool, OH 44392

COAL OPERATOR None
Address:

Acreage 118.29

COAL OWNER(S) WITH DECLARATION ON RECORD:

SURFACE OWNER William D. Falke
Address 1085 Tasman Drive, Apt. 412
Sunnyvale, CA 94090
Acreage 25

Name William D. Falke
Address 1085 Tasman Drive, Apt. 412
Sunnyvale, CA 94090

FIELD SALE (IF MADE) TO:
Name
Address

Name
Address

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

COAL LESSEE WITH DECLARATION ON RECORD:
Name None
Address
RECEIVED
OCT 17 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 / dated Dec. 1, 1978, to the undersigned well operator from Samuel Perine

[If said deed, lease, or other contract has been recorded:]
Recorded on August 9, 1979, in the office of the Clerk of the County Commission of Doddridge County, West Virginia, in Lease Book 110 at page 115. 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 objection they wish to make or are required to make by Code 5 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
1615 WASHINGTON STREET EAST
CHARLESTON, WV 25311
TELEPHONE: (304) 345-3092

BLANKET BOND

J & J Enterprises Inc.
Well Operator
By Peter Battles
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, 5350 feet Rotary / Cable tools /

Approximate water strata depths: Fresh, 400 feet; salt, 1350 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	0	0 sks	Kinds
Fresh water	8 ⁵ / ₈	ERW	23	X		1500	1500	375 sks	
Coal	8 ⁵ / ₈	ERW	23	X		1500	1500	375 sks	Sizes
Intermediate									
Production	4 ¹ / ₂	J-55	10.5	X		5325	5325	300 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 6-22-81

[Signature]
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