



FILE NO. _____
 DRAWING NO. _____
 SCALE 1" = 1,000'
 MINIMUM DEGREE OF ACCURACY 1 PART IN 200
 PROVEN SOURCE OF ELEVATION INT. BY IS & BURTON RUN ROAD
ELEV. - 837'

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) *David L. Thacker*
 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 JANUARY 9, 1980
 OPERATOR'S WELL NO. K-213-3
 API WELL NO. _____
47 - 017 - 2576
 STATE COUNTY PERMIT

WELL TYPE: OIL ___ GAS X LIQUID INJECTION ___ WASTE DISPOSAL ___
 (IF "GAS.") PRODUCTION X STORAGE ___ DEEP ___ SHALLOW X
 LOCATION: ELEVATION 843' WATER SHED COVE CREEK
 DISTRICT COVE COUNTY DODDRIDGE
 QUADRANGLE VADIS 7.5' 15' WC
 SURFACE OWNER HENRY KREYENBUHL ACREAGE 187
 OIL & GAS ROYALTY OWNER HENRY KREYENBUHL LEASE ACREAGE 192
 LEASE NO. K-213
 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 5,200'
 WELL OPERATOR L.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

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

WELL OPERATOR'S REPORT //
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: 843 Watershed: Cove Creek
District: Cove County: Doddridge Quadrangle: Vadis 7 1/2

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 January 15, 1980 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 5004 feet
Depth of completed well, 5309 feet Rotary / Cable Tools
Water strata depth: Fresh 40,105 feet; salt None feet.
Coal seam depths: None Is coal being mined in the area? No
Work was commenced Feb. 16, 1980, and completed Feb. 23, 1980

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	Setting
Conductor	1 13/4	H-40	42	X		126.35	0	0 sks	Kind	None
Fresh water	8 5/8	ERW	23	X		1501.05	1501.05	344 sks		
Coal	8 5/8	ERW	23	X		1501.05	1501.05		Size	
Intermediate										
Production	4 1/2	J-55	10.5	X		5707	5207	6-- sks	Depth set	
Tubing										
Liners									Perforations:	
									Top	Bottom
									2302	2306
									2516	2520
									4758	4760
									5014	5078

OPEN FLOW DATA
Producing formation Alexander OIL & GAS DIVISION DEPT. OF MINES 5014-5078
Gas: Initial open flow, Show Mcf/d Oil: Initial open flow, _____ Bbl/d
Combined Final open flow, 311 Mcf/d Final open flow, _____ Bbl/d
Time of open flow between initial and final tests, 4 hours
Static rock pressure, 1025 psig (surface measurement) after 36 hours shut in
[If applicable the no multiple completion--]
Second producing formation _____ Pay cone depth 2302-06
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

Continued on reverse side

APR 9 1980

DETAILS OF PERFORATED INTERVALS, FRACTURING OF CEMENT LAYERS, PHYSICAL CHANGE, ETC.

Alexander/Benson-Perforations; 4758-60 (4 holes), 5014-78 (16 Holes)
Fracturing:

Gordon-Perforations; 2516'-20' (14 Holes)
Fracturing;

Berea-Perforations; 2302'-06' (14 Holes)
Fracturing;

WELL LOG

FORMATION	Color	Hard or Soft	Top Feet	Bottom Feet	Remarks Including indication of all fresh and salt water, coal, oil and gas
Clay			0	10	
Sand & Shale			10	30	
Sand			30	50	1" Stream @ 40'
Red Rock & Shale			50	75	
Shale			75	100	2 1/2" stream water @ 105'
Sand			100	150	1/2" stream water @ 150'
Shale			150	195	
Red Rock			195	235	
Sand			235	300	
Shale			300	450	
Sand			450	480	
Shale			480	560	
Red Rock			560	615	
Shale			615	695	
Red Rock			695	1070	
ndy Shale			1070	1660	
Shale			1660	1880	
Big Lime			1880	1940	
Big Injun			1940	2000	
Shale			2000	2100	
Weir			2100	2190	
Shale & Sand			2190	2900	Gas @ 2648 23/10 thru 1 1/2" w/water
Sand			2900	2935	
Shale			2935	3095	
Sand			3095	3130	
Shale			3130	3935	
Sand			3935	3970	
Shale			3970	4080	
Sand			4080	4130	
Shale			4130	4400	
Sand			4400	4460	
Shale			4460	4665	

J & J Enterprises, Inc.

Well Operator

Peter Battles
Geologist

NOTE: Regulation 0.0016 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."

FORMATION	Color	Hard or Soft	Top Feet	Bottom Feet	Including indication of gas, water, oil, etc.
Riley Shale			4665	4670	
Benson Shale			4670 - 4755	4755 4760	
			4760	5005	Gas @ 4877 3/10 thru 1 1/2" w/water
<u>Alexander</u> Shale			5005	5136	
			5136	5309	Gas @ 5309 2/10 thru 1 1/2" w/water

[08-78]

OIL AND GAS WELL PERMIT APPLICATION

Operator's Well No. K-213-#3

API Well No. 47 - 017 - 2576
State County Permit

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

LOCATION: Elevation: 843 Watershed: Cove Creek
District: Cove County: Doddridge Quadrangle: Vadis 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 Henry & Elizabeth Kreyenbuhl
Address 185 Edgewood Street
Wheeling, W. Va. 26003

COAL OPERATOR None
Address

ACREAGE 192
SURFACE OWNER Henry & Elizabeth Kreyenbuhl
Address 185 Edgewood Street
Wheeling, W. Va. 26003
ACREAGE 187

COAL OWNER(S) WITH DECLARATION ON RECORD:
Name Henry Kreyenbuhl
Address 185 Edgewood St.
Wheeling, W. Va. 26003

FIELD SALE (IF MADE) TO:
Name
Address

Name
Address

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

COAL LESSEE WITH DECLARATION ON RECORD:
Name None
Address

RECEIVED
JAN 15 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 October 13, 1978, to the undersigned well operator from Henry & Elizabeth Kreyenbuhl

[If said deed, lease, or other contract has been recorded:]
Recorded on November 3, 1978, in the office of the Clerk of the County Commission of Doddridge County, West Virginia, in Oil & Gas Lease Book 105 at page 350. 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 other laws they wish to take 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
1614 WASHINGTON STREET EAST
CHARLESTON, WV 25311
TELEPHONE: (304) 348-3092

BLANKET BOND

J & J ENTERPRISES, INC.
Well Operator
By Peter Battles
PETER BATTLES Geologist
Its

[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 Company
Address P. O. Box 48
Buckhannon, W. Va. 26201

GEOLOGICAL TARGET FORMATION, Alexander

Estimated depth of completed well, 5420 feet Rotary X / Cable tools /
Approximate water strata depths: Fresh, 100 feet; salt, 0 feet.
Approximate coal seam depths: 250, 850 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	Kinds
Conductor	11 3/4	H-40	42	X		30	0	0 sks.	None
Fresh water	8 5/8	ERW	23	X		1144	1144	300 sks.	
Coal	8 5/8	ERW	23	X		1144	1144	300 sks.	
Intermediate									
Production	4 1/2	J-55	10.5	X		5400	5400	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 to be part of the work for which a permit is sought and **THIS PERMIT MUST BE POSTED AT THE WELL SITE** 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 9-15-80.

[Signature]
Deputy Director - Oil & Gas Division

The undersigned coal operator must be satisfied by the coal operator and by any coal owner or coal lessee who has not made 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