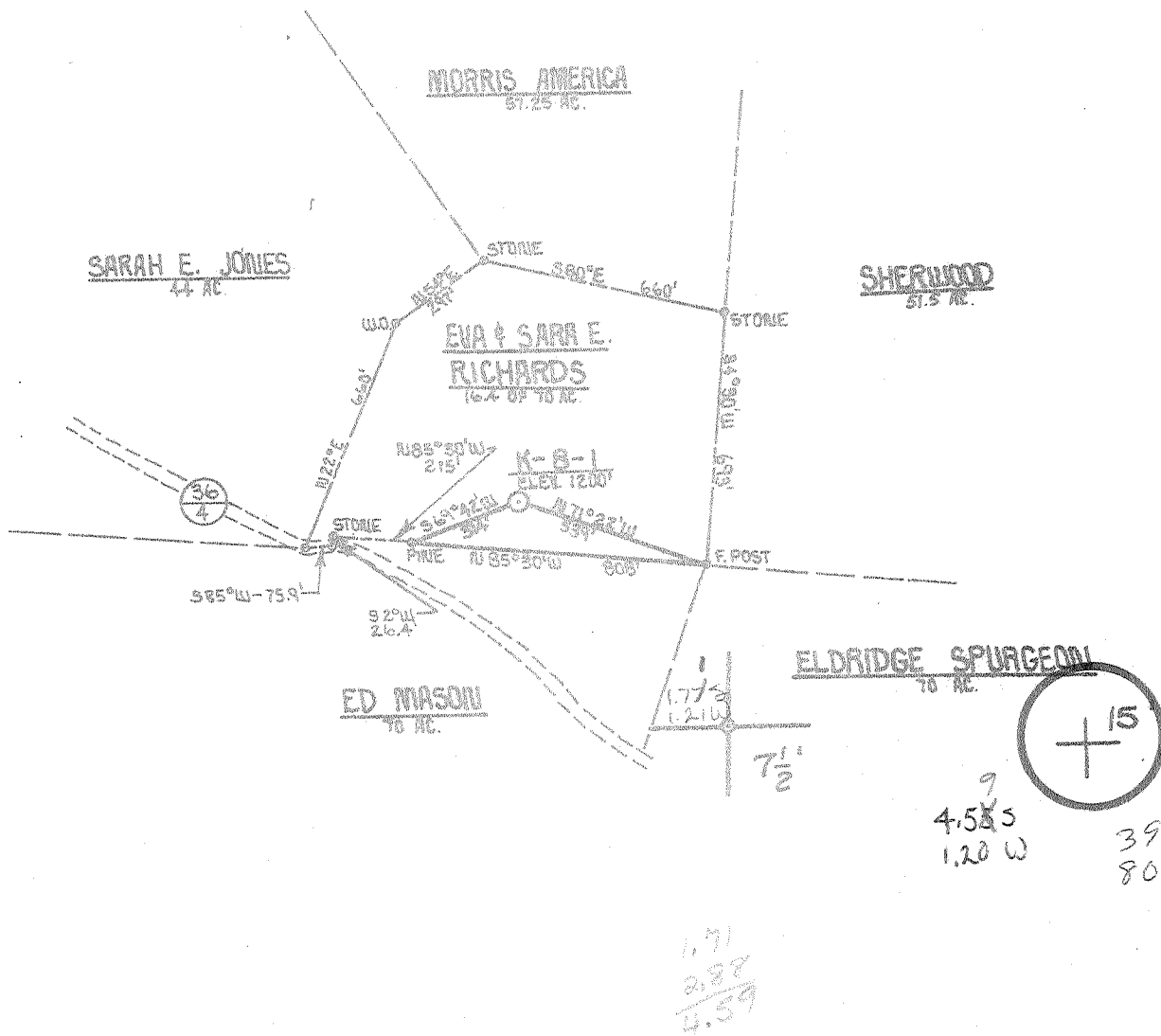


LATITUDE 39°17'30"
(15') 39°20'

LONGITUDE 80°50'00"

NORTH



FILE NO. _____
DRAWING NO. _____
SCALE 1" = 500'
MINIMUM DEGREE OF ACCURACY 1 PART IN 200
PROVEN SOURCE OF ELEVATION B.M. 1800' NORTH OF INT. OF RT. 36 & RT. 50/3.
ELEV. 849'

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 L. Wheeler
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 16, 1980
OPERATOR'S WELL NO. K-B-1
API WELL NO. _____
47 - 017 - 2583
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 1200' WATER SHED W. N. NELSON RUN
DISTRICT CENTRAL COUNTY DODDRIDGE
QUADRANGLE WEST UNION 7.5', 15' SC
SURFACE OWNER CLIFTON E. SNEPLER ACREAGE 16.4
OIL & GAS ROYALTY OWNER EVA & SARA E. RICHARDS LEASE ACREAGE 70
LEASE NO. K-B
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 5,150'
WELL OPERATOR J. J. ENTERPRISES, INC. DESIGNATED AGENT HARRY BARNETT
ADDRESS P.O. BOX 48 ADDRESS P.O. BOX 48
BUCKHORN, W. VA. 26201 BUCKHORN, W. VA. 26201

FEB - 7 1980

Date: February 6, 1980

Operator's Well No. k-8-#1
API Well No. 47 - 017 - 2583
State County Permit

STATE OF WEST VIRGINIA
OIL & GAS DIVISION DEPARTMENT OF MINES, OIL AND GAS DIVISION
DEPT. OF MINES

WELL OPERATOR'S REPORT 49
OF
DRILLING, FRACURING AND/OR STIMULATING, OR PHYSICAL CHANGE

WELL TYPE: Oil / Gas / Liquid Injection / Waste Disposal
(If "Gas", Production / Underground storage / Deep / Shallow
LOCATION: Elevation: 1200 Watershed: Williams 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, W. Va. 26201 Buckhannon, W. Va. 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 2, 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 Beach Street
Clarksburg, West Virginia 26301

GEOLOGICAL TARGET FORMATION: Alexander Depth 5440 feet
Depth of completed well, 5771 feet Rotary / Cable Tools
Water strata depth: Fresh, 475 feet; salt, 0 feet.
Coal seam depths: 955-959 Is coal being mined in the area? NO
Work was commenced January 21, 19 80, and completed January 28, 19 80

CASING AND TUBING PROGRAM

CASING OR TUBING TYPE	SPECIFICATIONS				FOOTAGE INTERVALS		CEMENT FILL-UP OR SACKS (Cubic feet)	HEAD		
	Size	Grade	Weight per ft	New	Used	For drilling		Left in well	Kind	None
Conductor	11 3/4	H-40	42	X		19	0	0 sks.	Kind	None
Fresh water	8 5/8	ERW	23	X		1552	1552	345 sks.		
Coal	8 5/8	ERW	23	X		1552	1552	345 sks.	Kind	
Intermediate										
Production Tubing	4 1/2	J-55	10.5	X		5541	5541	675 sks.	Kind	Set
Liners									Perforations:	
									Top	Bottom
									5450	5474
									5084	5162
									3624	3632
									2522	2604

OPEN FLOW DATA

Producing formation Alexander & Benson Pay zone depth 5450-5474 feet
5084-5162
Gas: Initial open flow, show Mcf/d Oil: Initial open flow, show Bbl/d
Combined Final open flow, 348 Mcf/d Final open flow, NA Bbl/d
Time of open flow between initial and final tests, 18 hours
Static rock pressure, 1100 psig (surface measurement) after 42 hours shut in
[If applicable due to multiple completion--]
Second producing formation Warren & Weir Pay zone depth 3624-3632 feet
2522-2604
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

FEB 28 1980

96-78

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

Alexander-Perforations: 5450-5454, (6 holes), 5462-5466, (6 holes), 5470-5474 (4 holes).
 Fracturing: 500 gal. Acid; 30,000 lbs. Sand 80/100 wire mesh; 30,000 lbs. Sand 20/40 wire mesh; 738 Bbls. Fluid.

son-Perforations: 5084-5088, (4 holes), 5108-5112, (8 holes), 5161-5162 (2 holes).
 Fracturing: 500 gal. Acid; 10,000 lbs. Sand 80/100 wire mesh; 20,000 lbs. Sand 20/40 wire mesh; 463 Bbls. Fluid.

en- Perforations: 3624-3632, (14 holes).
 Fracturing: 500 gal. Acid; 10,000 lbs. Sand 80/100 wire mesh; 20,000 lbs. Sand 20/40 wire mesh; 468 Bbls. Fluid.

r- Perforations: 2522-2526, (6 holes), 2542-2546, (6 holes), 2602-2604, (2 holes).
 Fracturing: 500 gal. Acid; 10,000 lbs. Sand 80/100 wire mesh; 25,000 lbs. Sand 20/40 wire mesh; 472 Bbls. Fluid.

Well Log

FORMATION	Color	Hard or Soft	4-8 Feet	Bottom Feet	Remarks Including Indicators of Acid salt water, gas, etc.
Fill			0	29	
Red Rock & Shale			29	40	
Sandy Shale			40	170	
Sand			170	176	
Red Rock			176	186	
Sandy Shale			186	307	
Sand			307	311	
Sandy Shale			311	318	
Red Rock & Shale			318	358	
Sand			358	372	
Sandy Shale			372	400	
Shale			400	407	
Sandy Shale			407	430	
Red Rock & Shale			430	440	
Sand			440	455	
Red Rock & Shale			455	475	Damp
Sand			475	525	
Red Rock			525	531	
Sandy Shale			531	955	
Coal			955	959	Coal
Sand			959	970	
Sandy Shale			970	1340	
Shale			1340	1347	
Sand			1347	1353	
Sandy Shale			1353	1375	
Sand			1375	1390	
Sandy Shale			1390	1452	
Red Rock & Shale			1452	1465	
Sand			1465	1500	
Red Rock & Shale			1500	1510	
Sandy Shale			1510	1545	
Sand			1545	1560	
Sandy Shale			1560	1745	Damp at 1745'

(Attach separate sheets if complete as necessary.)

J & J ENTERPRISES, INC.

Well Operator

By *Peter Battles*
 PETER BATTLES

GEOLOGIST

NOTE: Regulation 2.3814 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."

FORMATION	Color	Hard or Soft	48 Feet	Bottom Feet	Remarks Including Indication of Oil, Gas and Salt Water, etc.
Sand			1745	1850	1 1/2" Stream water @1794'
Sandy Shale			1850	1895	
Shale			1895	1935	
Sand			1935	1968	
Sandy Shale			1968	1982	
Shale			1982	1990	
Sandy Shale			1990	2121	
Red Rock & Shale			2121	2180	
Little Lime			- 2180	2190	
Shale			2190	2215	
Big Lime			- 2215	2310	
Big Injun			2310	2353	
Shale			2353	2515	
Sand			2515	2540	
Sandy Shale			2540	3490	
Sand & Shale			3490	3630	
Sandy Shale			3630	5160	
Benson			- 5160	5163	
Sandy Shale			5163	5420	
Alexander			5420	5490	
Sandy Shale			5490	5771	
			TD	5771	Gas Check @TD 5771' 3/10-1" FM Water

[08-78]

OIL AND GAS WELL PERMIT APPLICATION

Operator's Well No. K-8-#1
API Well No. 47 - 017 - 2583
State County Permit

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

LOCATION: Elevation: 1200 Watershed: Wilhelms Creek
District: Central County: Doddridge Quadrangle: West Union

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 Howard W. & Edna Richards/Calhoun
Address Rt. 1, Box 139C
Toms Brook, Virginia 22601

COAL OPERATOR None
Address

ACREAGE 16.4
SURFACE OWNER Clifton E. Shepler
Address Greenwood
West Virginia 26360
ACREAGE 16.4

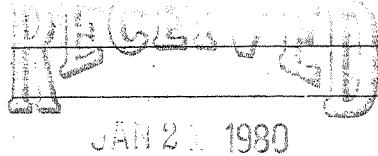
COAL OWNER(S) WITH DECLARATION ON RECORD:
Name Clifton Shepler
Address Greenwood,
West Virginia 26360

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. 26201

COAL LESSEE WITH DECLARATION ON RECORD:
Name None
Address



OIL & GAS DIVISION

DEPT. OF MINES

The undersigned well operator is entitled to operate for oil and gas purposes at the above location under a deed / lease X / other contract / dated November 10, 1977, to the undersigned well operator from Howard W. and Edna Richards

[If said deed, lease, or other contract has been recorded:]
Recorded on March 21, 1978, in the office of the Clerk of the County Commission of Doddridge County, West Virginia, in Oil & Gas Lease Book 103 at page 564. A permit is requested as follows:

PROPOSED WORK: Drill X / Drill deeper / Redrill / Fracture or stimulate X /
Blow out old completion / Perforate new formation /
Other physical change in well (specify)

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

The well operator, coal owner(s), and coal lessee are hereby notified that any other laws or rules that may be 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
1005 WASHINGTON STREET EAST
CHARLESTON, WV 25311
TELEPHONE: (304) 348-3092

BLANKET BOND

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

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

GEOLOGICAL TARGET FORMATION, Alexander

Estimated depth of completed well, 5500 feet Rotary X / Cable tools /

Approximate water strata depths: Fresh, 230 feet; salt, 0 feet.

Approximate coal seam depths: 300 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
Fresh water	8 5/8	ERW	23	X		1700	1700	280 sks.	
Coal	8 5/8	ERW	23	X		1700	1700	280 sks.	Sizes
Intermediate									
Production	4 1/2	J-55	10.5	X		5470	5470	320 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 ~~PERMIT MUST BE POSTED AT THE WELL SITE~~ it 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 9-21-80

[Signature]
Deputy Director - Oil & Gas Division

The undersigned coal operator and by any coal owner or coal lessee has recorded a declaration under Code § 22-4-20, if the permit is to be issued within fifteen (15) days of receipt thereof:

WAIVER

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 _____