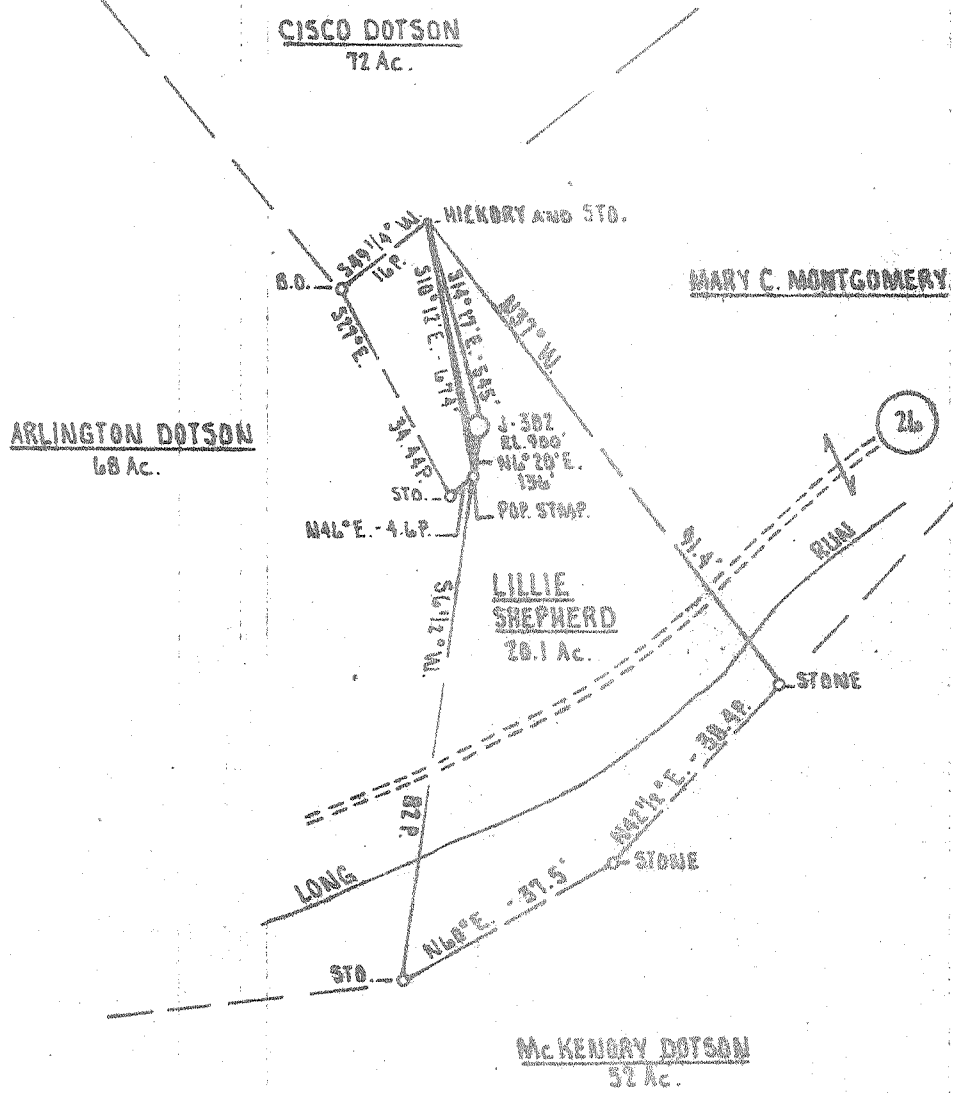


0.695
0.394
5

NORTH

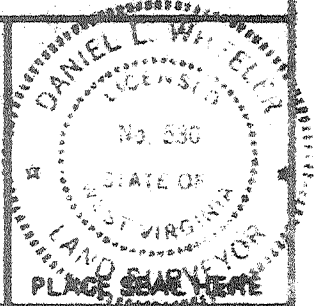
LONGITUDE 80° 50' 00"



391925
805025

FILE NO. _____
DRAWING NO. _____
SCALE 1" = 500'
MINIMUM DEGREE OF ACCURACY 1 PART IN 200
PROVEN SOURCE OF ELEVATION INT. RT. 26 AND RT. 11
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 L. Wheeler
R.P.E. _____ L.L.S. 530



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



DATE JUNE 18th 19 80
OPERATOR'S WELL NO. J-302
API WELL NO. _____
47 - 017 - 2787
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 900' WATER SHED LONG RUN
DISTRICT CENTRAL COUNTY DODDRIDGE
QUADRANGLE WEST UNION 7.5' & 15' 50"
SURFACE OWNER LILLIE & JAMES E. SHEPHERD ACREAGE 9.37 Ac.
OIL & GAS ROYALTY OWNER LILLIE SHEPHERD LEASE ACREAGE 20.1 Ac.
LEASE NO. P.S. 16
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 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

[08-78]

WELL OPERATOR'S REPORT OF

API Well No. 47 017 2787

DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

State County Ferni

WELL TYPE: Oil ___ / Gas X / Liquid Injection ___ / Waste Disposal ___
(If "Gas", Production X / Underground storage ___ / Deep ___ / Shallow X /)

LOCATION: Elevation: 900 Watershed: Long Run
District: Central County: Doddridge Quadrangle: West Union 7.5'

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 X / Convert ___ / Drill deeper ___ / Redrill ___ / Fracture or stimulate X
Plug off old formation ___ / Perforate new formation ___
Other physical change in well (specify) _____

PERMIT ISSUED ON 7-7, 19 80 OIL & GAS INSPECTOR FOR THIS WORK:

IF APPLICABLE: PLUGGING OF DRY HOLE ON CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED

Name Paul Garrett
Address 321 Beech St.
Clarksburg, WV 26301

GEOLOGICAL TARGET FORMATION: Alexander Depth 111 feet

Depth of completed well, 5215 feet Rotary X / Cable Tools NOV - 7 1980

Water strata depth: Fresh, 1280 feet; salt, 1375-87 feet.

Coal seam depths: 278-80 Is coal being mined in the area? No
Work was commenced 8-25, 19 80, and completed 9-2, 19 80

LOGGING AND TUBING PROGRAM

LOGGING 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
Conductor	113/4	H-40	42	X		32	0	0 sks.	
Fresh water	8 5/8	ERW	23	X		1467.45	1467.45	750 sks.	
Intermediate	8 5/8	ERW	23	X		1467.45	1467.45	750 sks.	Sizes
Production	4 1/2	J-55	10.5	X		5163.10	5163.10	370 sks.	Depth set
Perforations:									
									Top Bottom
									5030 5052
									4735 4738
									4322 4325

OPEN FLOW DATA

Producing formation Alexander Pay zone depth 5030-52 feet
Gas: Initial open flow, ___ Mcf/d Oil: Initial open flow, ___ Bbl/d
Combined Final open flow, 622 Mcf/d Final open flow, ___ Bbl/d
Time of open flow between initial and final tests, 4 hours
Static rock pressure, 900 psig (surface measurement) after 96 hours shut in.

[If applicable due to multiple completion--]
Second producing formation Benson & Bradford Pay zone depth 4735-38 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

NOV 25 1980

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

Alexander: Perforations: 5030-52 (14 holes)
 Fracturing: 300 lbs. Citric Acid: 10,000 lbs. 80/100 sand: 50,000 lbs. 20/40 sand: 600 Bbls. fluid.

Benson: Perforations: 4735-38 (12 holes)
 Fracturing: 15,000 lbs. 80/100 sand: 30,000 lbs. 20/40 sand: 500 gal. Acid: 500 Bbls. fluid.

Bradford: Perforations: 4322-4325 (12 holes)
 Fracturing: 15,000 lbs. 80/100 sand: 30,000 lbs. 20/40 sand: 500 gal. Acid.

WELL LOG

FORMATION	Color	Hard or Soft	Z/ Top Feet	Bottom Feet	Remarks Including indication of all fresh and salt water, coal, oil and gas
Fill			0	20	
Shale			20	40	
Red rock & shale			40	66	
Sand & shale			66	115	
Red rock			115	120	
Sand, red rock & shale			120	185	
Red rock, sand & shale			185	255	
Red rock & shale			255	278	
Coal			278	280	
Red rock, shale & sand			280	395	
Sand & shale			395	585	Damp @ 390'
Red rock & shale			585	643	
Red rock, sand & shale			643	750	
Red rock & shale			750	795	
Red rock, sand & shale			795	820	
Red rock, sand & shale			820	855	
Red rock & shale			855	885	
Red rock, sand & shale			885	910	
Red rock, sand & shale			910	1145	
Shale & sand			1145	1325	
Salt sand			1325	1387	Water @ 1280'
Sand & shale			1387	1755	
Big Lime			1755	1810	Gas ck @ 2117 2/10 thru 1/2" w/water
Injun			1810	1925	Gas ck @ 3758 6/10 thru 1/2" w/water
Sand & shale			1925	2081	Gas ck @ 4658 No show
Weir			2081	2163	Gas ck @ 4783 No show
Bradford			2163	4325	Gas ck @ 5092 No show
Sand & shale			4325	4735	
Benson			4735	4755	
Shale			4755	5035	
Alexander			5035	5070	
					T.D.

(Attach separate sheets to complete as necessary)

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

DTE: Regulation 2.02(i) 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."

[08-78]

OIL AND GAS WELL PERMIT APPLICATION

Operator's Well No. J-302
API Well No. 47-017-2787
State County Perm

WELL TYPE: Oil / Gas
(If "Gas", Production / Underground storage / Deep / Shallow
LOCATION: Elevation: 900 Watershed: Long Run
District: Central County: Doddridge Quadrangle: West Union 7.5'

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

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

OIL & GAS ROYALTY OWNER Lillie Shepherd
Address Box 94
Greenwood, WV 26360

COAL OPERATOR None
Address _____

ACREAGE 20.1
SURFACE OWNER Lillie Shepherd
Address Box 94
Greenwood, WV 26360
ACREAGE 9.37

COAL OWNER(S) WITH DECLARATION ON RECORD:
Name Lillie Shepherd
Address Box 94
Greenwood, WV 26360

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 _____

The undersigned well operator is entitled to operate for oil or gas purposes at the above location under a deed / lease / other contract / dated Aug. 6, 1979, to the undersigned well operator from Petroleum Services

If said deed, lease, or other contract has been recorded:]
Recorded on Sept. 12, 1979, in the office of the Clerk of the County Commission of Doddridge County, West Virginia, in Oil & Gas ^{Book} 110 at page 612. A permit is requested as follows:

PROPOSED WORK: Drill / Drill deeper / Redrill / Fracture or stimulate /
Pick off old formation / Perforate new formation /
Other physical change in well (specify) _____

Explained 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 action they wish to take or are required to take 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 declaration shall be sent by registered mail or delivered by hand to the above named coal operator, coal owner(s), and coal lessee before the day of the mailing or delivery of this Permit Application to the Department of Mines, Charleston, West Virginia.

PLEASE SUBMIT COPIES OF ALL PHYSICAL LOGS DIRECTLY TO:
WEST VIRGINIA OIL AND GAS CONSERVATION COMMISSION
12 WASHINGTON STREET EAST
CHARLESTON, WV 25301

RECEIVED

JUL 7 1980

J & J Enterprises, Inc.
Well No. _____

OIL & GAS DIVISION BY
DEPT. OF MINES

Peter Battles
Peter Battles
Geologist

BLANKET SIGNATURE

[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 Box 48
Buckhannon, WV 26201

GEOLOGICAL TARGET FORMATION, Alexander

Estimated depth of completed well, 5400 feet Rotary / Cable tools /

Approximate water strata depths: Fresh, _____ feet; salt, _____ feet.

Approximate coal seam depths: _____ 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	113/4	H-40	42	x		30	0	0 sks.	Kinas
Fresh water	8 5/8	ERW	23	x		1600	1600	400 sks;	
Coal	8 5/8	ERW	23	x		1600	1600	400 sks.	Cines
Intermediate									
Production	4 1/2	J-55	10.5	x		5375	5375	350 sks.	Depth 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 plan 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-3, "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 § 22-4-2a from the owner of any water well or drilling within 200 feet of the proposed well.

A separate Form IV-2 shall not be required for fracturing or stimulating a well. **THIS PERMIT MUST BE POSTED AT THE WELL SITE** if 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 3-10-81

[Signature]
Deputy Director - Oil & Gas Division

The following waiver must be completed by the well owner or coal leasee who has recorded a declaration under Code § 22-4-11. 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 this well location has examined this proposed well location. If a mine now exists which covers the area of the well location, the well location has been added to the mine plan. The undersigned has no objection to the work proposed to be done at this location, provided, the well operator is furnished with all applicable requirements of the West Virginia Code and the governing regulations.

Date: _____, 19____

By _____
Its _____