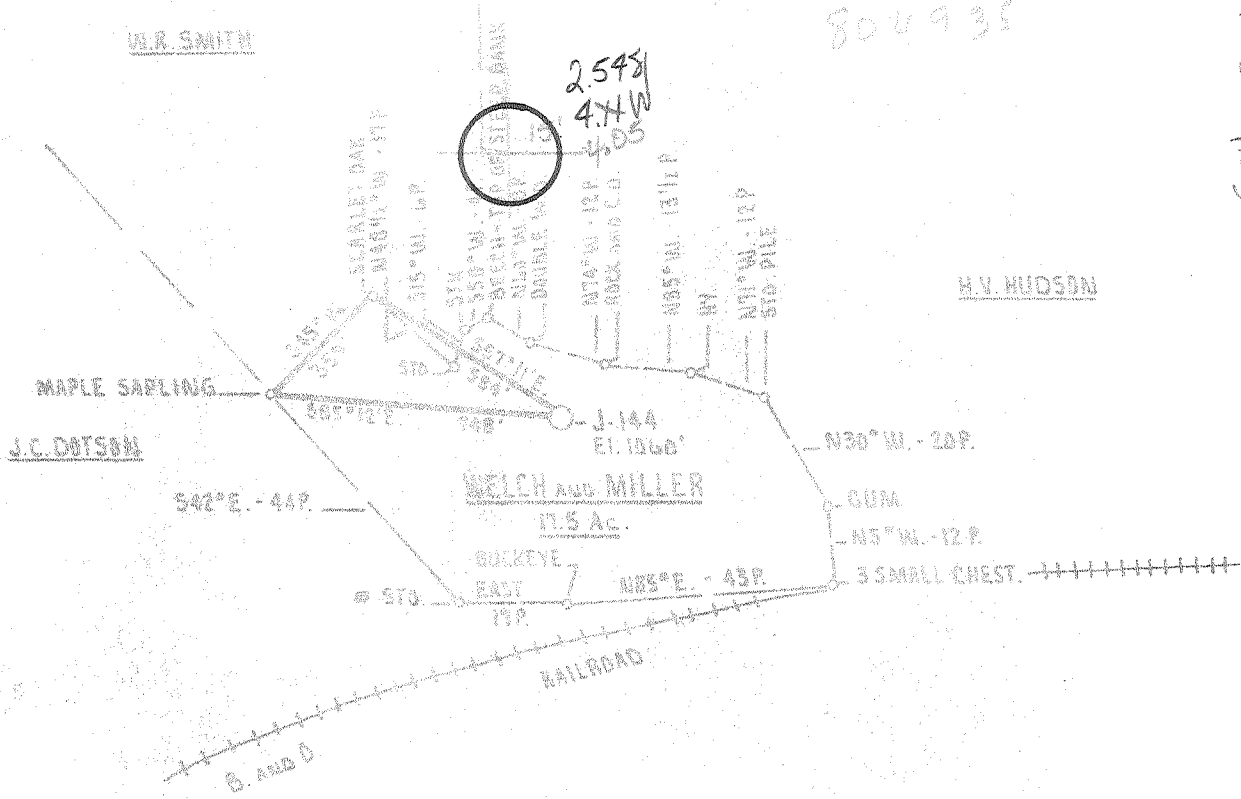


39 17 50
80 49 35

(5') 80 45'
LONGITUDE 80° 47' 30"

NORTH



FILE NO. _____
 DRAWING NO. _____
 SCALE 1" = 500'
 MINIMUM DEGREE OF ACCURACY (PART IN 200) _____
 PROVEN SOURCE OF ELEVATION B.M. ON R.R. TRESTLE AT ARNOLD'S CREEK ELEV. 816'

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.I.S. 436

PLACE SEAL HERE

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



DATE AUGUST 5th, 19 80
 OPERATOR'S WELL NO. J-144
 API WELL NO. 47-017-2815
 STATE WEST VIRGINIA COUNTY BOONVILLE 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 1060' WATER SHED ARNOLD CREEK
 DISTRICT CENTRAL COUNTY BOONVILLE
 QUADRANGLE WEST UNION 25° E 153E
 SURFACE OWNER JAMES E. PAUL, J.W. ROBINSON ACREAGE 17.5 Ac.
 OIL & GAS ROYALTY OWNER WELCH AND MILLER LEASE ACREAGE 17.5 Ac.
 LEASE NO. 4-13
 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 _____
 FORMATION ALEXANDER ESTIMATED DEPTH 5400'
 OPERATOR J AND J ENTERPRISES DESIGNATED AGENT HARRY BARNETT
 OFFICE PO BOX 48 ADDRESS PO BOX 48
 BOONVILLE WEST VIRGINIA 26001 BOONVILLE WEST VIRGINIA 26001

66 CENTRAL STATION

[08-78]

WELL OPERATOR'S REPORT 24
OF
DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

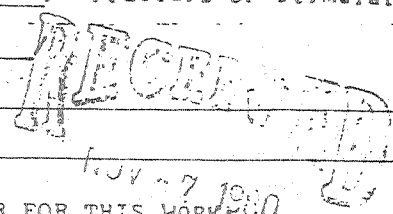
Operator's Well No. J-144
API Well No. 47 - 017 - 2815
State County Perm.

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

LOCATION: Elevation: 1060 Watershed: Arnold's Creek
District: Central County: Doddridge Quadrangle: West Union 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 / Convert / Drill deeper / Redrill / Fracture or stimulate
Plug off old formation / Perforate new formation
Other physical change in well (specify) _____



PERMIT ISSUED ON 8-8, 19 80 OIL & GAS INSPECTOR FOR THIS WORK
Name Paul Garrett
IF APPLICABLE: PLUGGING OF DRY HOLE ON CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED _____
Address 321 Beech St.
Clarksburg, WV 26301

GEOLOGICAL TARGET FORMATION: Alexander Depth 5275-5341 feet
Depth of completed well, 5497 feet Rotary / Cable Tools
Water strata depth: Fresh, 555¹⁴⁸⁵ feet; salt, 1454¹⁵⁰⁵ feet.
Coal seam depths: Coal Is coal being mined in the area? No
Work was commenced 9-3, 1980, and completed 9-9, 1980

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
Conductor	11 3/4	H-40	42	x		32	32	0 sks.	Kinds
Fresh water	8 5/8	ERW	23	x		1623.70	1623.70	370 sks.	
Al	8 5/8	ERW	23	x		1623.70	1623.70	370 sks.	Sizes
Intermediate									
Production	4 1/2	J-55	10.5	x		5431.69	5431.69	220 sks.	Depths set
Tubing									
Packers									Perforations:
									Top Bottom
									4614 4618
									5029 5033
									5307 5341

FLOW DATA
Producing formation Alexander Pay zone depth 5307-5341 feet
Gas: Initial open flow, _____ 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, 1550 psig (surface measurement) after 9 6 hours shut in
[If applicable due to multiple completion--]
Second producing formation Benson & Riley Pay zone depth 4614-4618 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: 5307-5341 (15 holes)

Fracturing: 30,000 lbs. 80/100 sand: 60,000 lbs. 20/40 sand: 500 gal.
Acid: 365 Bbls. fluid.

Benson & Riley: 5029-33 (5 holes) 4614-18 (5 holes)

Fracturing: 30,000 lbs. 80/100 sand: 60,000 lbs. 20/40 sand:
500 gal. Acid: 365 Bbls. fluid.

WELL LOG

FORMATION	Color	Hard or Soft	Top Feet	Bottom Feet	Remarks Including indication of all free and salt water, coal, oil and gas
Red rock & shale			0	25	
Sand & shale			25	35	
Red rock, sand & shale			35	110	
Red rock, sand & shale			110	145	
Red rock			145	150	
Sand & shale			150	230	
Red rock, sand & shale			230	340	
Red rock			340	355	
Sand, shale & red rock			355	405	
Sand & shale			405	460	
Red rock, sand & shale			460	505	
Red rock			505	580	
Sand, shale & red rock			580	630	
Red rock			630	745	
Sand & shale			745	790	
Red rock & shale			790	945	
Sand & shale			945	1050	
Salt sand			1050	1454	
Sand & shale			1454	1505	3/4" stream @ 1485
Red rock, shale & sand			1505	1935	
g Lime			1935	2011	Damp @ 1870
Jun & Lime			2011	2096	
Sand & shale			2096	2191	
Sand & shale			2190	2600	Gas @ 2334 4/10-1/2" w/water
Sley			2600	4600	
nd			4600	4618	
anson			4618	4975	Gas @ 4879 4/10-1/2" w/water
nd			4975	5033	
Alexander			5033	5275	Gas @ 5002 4/10-1/2" w/water
ale			5275	5341	
			5341	5497 T.D.	Gas @ 5403 No show

(Attach separate sheets to complete as necessary)

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

REG: 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-144

API Well No. 47-017-2815
State County Fe

WELL TYPE: Oil ___ / Gas x /
(If "Gas", Production x / Underground storage ___ / Deep ___ / Shallow x /)
LOCATION: Elevation: 1060 Watershed: Arnold's Creek
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 Margaret Miller
Address P.O. Box 1027
Ozona, Texas 76943

COAL OPERATOR None
Address

SURFACE OWNER L.W. Robinson/James E. Paul
Address Rt. # 1 Rt. # 1
Greenwood, WV 26360 Greenwood, WV 26360
Acreage 17.5

COAL OWNER(S) WITH DECLARATION ON RECORD:
Name L.W. Robinson
Address Rt. 1
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 x / dated Feb. 28, 1980, to the undersigned well operator from Justin L. Henderson

[If said deed, lease, or other contract has been recorded:]
Recorded on March 25, 1980, in the office of the Clerk of the County Commission of Doddridge County, West Virginia, in Oil & Gas lease Book 114 at page 314. 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 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.

RECEIVED

BLANKET BOND

AUG - 8 1980

J & J Enterprises, Inc.

PLEASE SUBMIT COPIES OF ALL GEOLOGICAL LOGS DIRECTLY TO:

WEST VIRGINIA OIL AND GAS CONSERVATION COMMISSION
615 WASHINGTON STREET EAST
CHARLESTON, WV 25311

TELEPHONE: (304) 348-3092

OIL & GAS DIVISION
DEPT. OF MINES

Peter Battles

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 Company

Address P.O. Box 48
Buckhannon, WV 26201

GEOLOGICAL TARGET FORMATION, Alexander

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

Approximate water strata depths: Fresh, 100 feet; salt, 1400 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		1600	1600	400 sks.	
Coal	8 5/8	ERW	23	x		1600	1600	400 sks.	Sizes
Intermediate									
Production	4 1/2	J-55	10.5	x		5375	5375	375 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 4-13-81.

Fred B. Burt
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