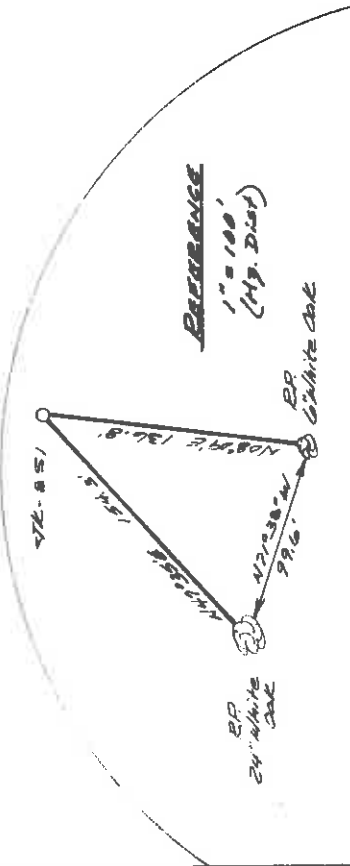
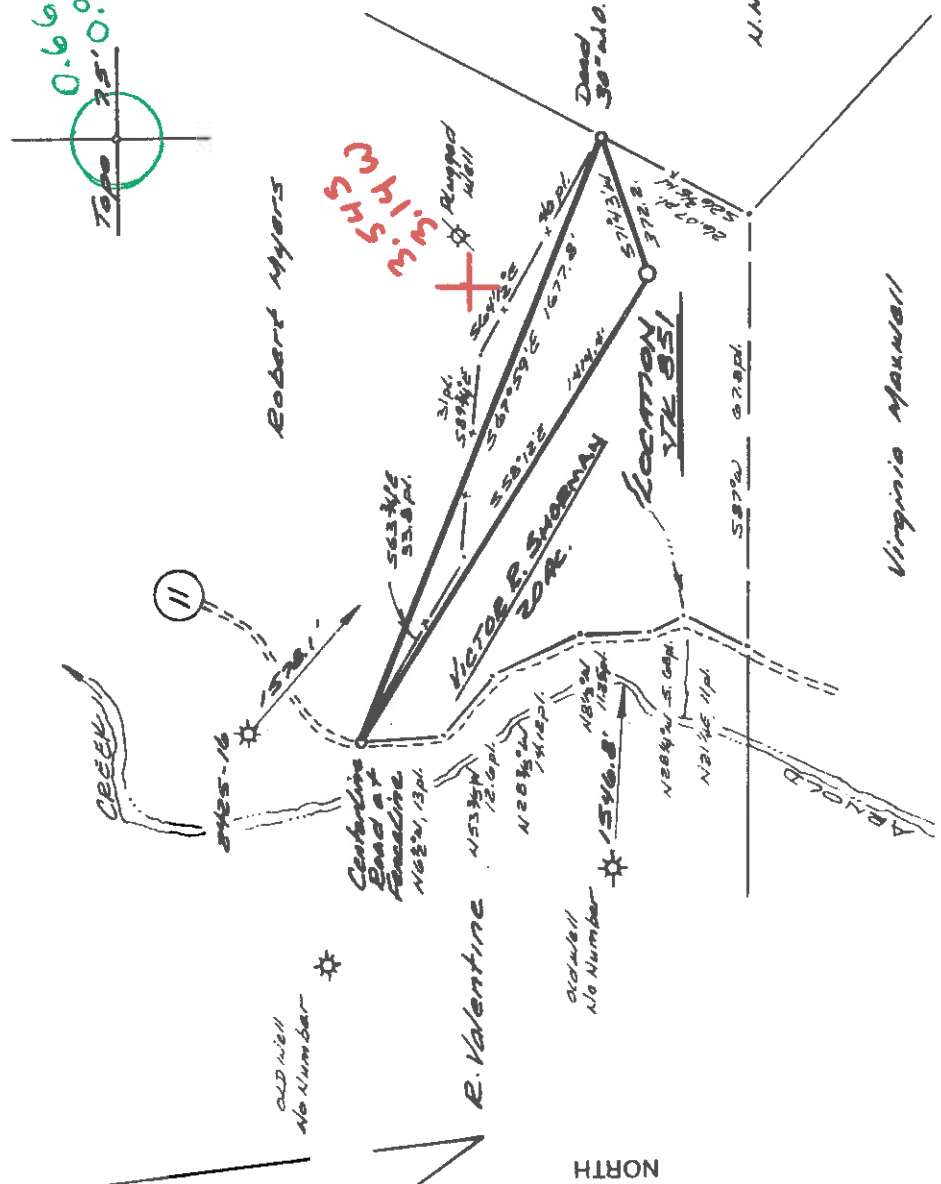
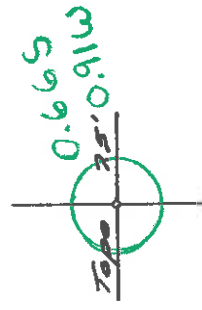


LATITUDE 39° 20'

Plot Card USD

LONGITUDE 80° 47' 30"



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS

FILE NO. 346.01
DRAWING NO. 84.3
SCALE 1" = 500'
MINIMUM DEGREE OF ACCURACY 1 in 200
PROVEN SOURCE OF ELEVATION Spot Elev. 1215' at Point of Ridge 350' N.E. of Location.

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) [Signature] R.P.E. Buckhannon, W.Va. L.S. 555

PLACE SEAL HERE



STATE OF WEST VIRGINIA DEPARTMENT OF MINES OIL AND GAS DIVISION

DATE 17 January 19 84 OPERATOR'S WELL NO. YK-851 API WELL NO.

47 017 3288 STATE COUNTY PERMIT

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
(If "GAS.") PRODUCTION STORAGE DEEP SHALLOW
LOCATION: ELEVATION 1130' WATER SHED Arnold Creek
DISTRICT Central 671 COUNTY Doddridge
QUADRANGLE West Union, W.Va. 9 15 156 ACREAGE 20
SURFACE OWNER Victor R. Swannay 133 9
OIL & GAS ROYALTY OWNER Dengel C. Leggett et al. LEASE ACREAGE 20 LEASE NO. YK-12

PROPOSED WORK: DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE PLUG OFF OLD FORMATION PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY)

PLUG AND ABANDON CLEAN OUT AND REPLUG
TARGET FORMATION Alexander 427 ESTIMATED DEPTH 5350
WELL OPERATOR Y & V ENTERPRISES, INC. DESIGNATED AGENT Dennis Reddick
ADDRESS P.O. Box 48 Buckhannon, W.Va. 26301

FEB 27 1984

**RECEIVED**

IV-35  
(Rev 8-81)

JUL 19 1984



**State of West Virginia**  
**DEPT. OF MINES**  
Oil & Gas Division  
Department of Mines  
Oil and Gas Division

Date July 19  
Operator's Well No. JK-851  
Farm Leggett/Rogers  
API No. 47 - 017 - 3288

**WELL OPERATOR'S REPORT**  
**OF**

**DRILLING, FRACTURING 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: 1130 Watershed Arnolds Creek  
District: Central County Doddridge Quadrangle West Union

COMPANY J&J Enterprises, Inc.

ADDRESS P.O. Box 48, Buckhannon, WV 26201

DESIGNATED AGENT Richard Reddecliff

ADDRESS P.O. Box 48, Buckhannon, WV 26201

SURFACE OWNER Victor Shorman

ADDRESS P.O. Box 6, Perry, MI 48872

MINERAL RIGHTS OWNER Ruth Foley/Ruth Rogers

ADDRESS P.O.Box 250 Salem, WV 26426

OIL AND GAS INSPECTOR FOR THIS WORK Harold

Mike Underwood ADDRESS Rt. 2, Box 114, Salem, WV

PERMIT ISSUED 2/21/84

DRILLING COMMENCED 6/22/84

DRILLING COMPLETED 6/28/84

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

GEOLOGICAL TARGET FORMATION Alexander

Depth of completed well 5652 feet Rotary x / Cable Tools \_\_\_\_\_

Water strata depth: Fresh 600 feet; Salt 0 feet

Coal seam depths: 485-90 Is coal being mined in the area? No

**OPEN FLOW DATA**

Producing formation Alexander Pay zone depth 5315-62 feet

Gas: Initial open flow \_\_\_\_\_ Mcf/d Oil: Initial open flow \_\_\_\_\_ Bbl/d

Combined Final open flow 1,508 Mcf/d Final open flow \_\_\_\_\_ Bbl/d

Time of open flow between initial and final tests 4 hours

Static rock pressure 1750 psig (surface measurement) after 96 hours shut in

(If applicable due to multiple completion--)

Second producing formation Benson Pay zone depth 4972-82 feet

Gas: Initial open flow \_\_\_\_\_ Mcf/d Oil: Initial open flow \_\_\_\_\_ Bbl/d

Final open flow \_\_\_\_\_ Mcf/d Oil: Final open flow \_\_\_\_\_ Bbl/d

Time of open flow between initial and final tests 4 hours

Static rock pressure \_\_\_\_\_ psig (surface measurement) after \_\_\_\_\_ hours shut in

(Continue on reverse side)

Casing & Tubing Size	Used in Drilling	Left in Well	Cement fill up Cu. ft.
20-16 Cond.			
13-10"	20	0	0 sks.
9 5/8			
8 5/8	1459.50	1459.50	365 sks.
7			
5 1/2			
4 1/2	5493.35	5493.35	220
3			
2			
Liners used			

Depth 5315-5353 feet

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

429

Alexander: Perforations: 5315-18 (3 holes) 5320-22 (2 holes) 5324-26 (4 holes) 5338-40 (2 holes) 5351-53 (2 holes)  
 Fracturing: 450 sks, 20/40 sand; 744 Bbls. fluid.  
 Benson: Perforations: 4972-73 (4 holes) 4980-82 (8 holes)  
 Fracturing: 250 sks, 20/40 sand; 500 gal. acid; 295 Bbls. fluid.

WELL HOLE PRESSURE Pf=Pwe XGLS  
 t=60 + (0.0075 x 5493) + 459.7 = 561 X=53.35 x 561 =29924 =0.000033 Pf=1750 x 2.72 (0.000033)  
 (0.710) (5163) (0.9) =1750 x 2.72 0.11 = 1750 x 1.1

Pf=1925 psi

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS
Clay			0	30	
Shale & sand			30	139	Damp @ 600'
Red rock & shale			139	190	
Sand & shale			190	485	Gas ck @ 2639 12/10-2" w/water 144,000 cu.ft.
Coal			485	490	
Sand & shale			490	1285	
Sand & shale			1285	1750	Gas ck @ 3651 18/10-2" w/water 179,000
Sand & shale			1750	2070	
Sand & shale			2070	2220	
Big Lime			2220	2285	
Big Injun			2285	4650	Gas ck @ 4760 24/10-2" w/water 207,000
Sand & shale			2285	4650	
Brown sand			4650	4972	
Benson			4972	4982	Gas ck @ 5066 18/10-2" W/Water 179,000
Sand & shale			4982	5315	
Alexander			5315	5353	
Sand & shale			5353	5652	Gas ck @ Drill collars 9/10-2" w/water 127,000
					T.D.

(Attach separate sheets as necessary)

J&J Enterprises, Inc.

Well Operator

By:  Robert Dahlin - Geologist  
 Date: 7/19/84

Note: Regulation 2.02(i) provides as follows:  
 "The term 'log' or 'well log' shall mean a systematic record of all formations, including



STATE OF WEST VIRGINIA  
DEPARTMENT OF MINES, OIL AND GAS DIVISION  
APPLICATION FOR A WELL WORK PERMIT

4) WELL TYPE: A Oil  Gas  B (If "Gas", Production  Underground storage  Deep  Shallow   
 5) LOCATION: Elevation: 1130 Watershed: Arnold Creek  
 District: Central County: Doddridge  
 6) WELL OPERATOR J&J Enterprises, Inc. 7) DESIGNATED AGENT Richard Reddecliff  
 Address P.O. Box 48 P.O. Box 48  
 Buckhannon, WV 26201 Buckhannon, WV 26201

8) OIL & GAS INSPECTOR TO BE NOTIFIED  
 Name Harold Mike Underwood  
 Address Rt. # 2, Box 114  
 Salem, WV 26426

10) PROPOSED WELL WORK: Drill  deeper  Redrill  Stimulate   
 Plug off old formation  Perforate new formation   
 Other physical change in well (specify) Alexander

11) GEOLOGICAL TARGET FORMATION, 5350 feet  
 12) Estimated depth of completed well, 250 feet; salt, 0 feet.  
 13) Approximate true depths: Fresh, None  
 14) Approximate coal seam depths: Is coal being mined in the area? Yes

15) 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
Conductor	11.3/4	H-40	42	X		30	0	0 sks.
Fresh water	85/8	ERW	23	X		1200	1200	To surface
Coal	85/8	ERW	23	X		1700	1200	To surface
Intermediate								
Production	4 1/2	J-55	10.5	X		5300	5300	400 sks.
Tubing								or as req. by rule 15.01
Liners								Perforations:
								Top
								Bottom

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FEB 2 - 1984

OIL & GAS DIVISION  
DEPT. OF MINES

OFFICE USE ONLY  
DRILLING PERMIT

Permit number 47-017-3288 February 21, 1984 Date

This permit covering the well operator and well location shown below is evidence of permission granted to drill in accordance with the pertinent legal requirements subject to the conditions contained herein and on the reverse hereof. Notification must be given to the District Oil and Gas Inspector, (Refer to No. 8) Prior to the construction of roads, locations and pits for any permitted work. In addition, the well operator or his contractor shall notify the proper district oil and gas inspector 24 hours before actual permitted work has commenced.)

The permitted work is as described in the Notice and Application, plat, and reclamation plan, subject to any modifications and conditions specified on the reverse hereof.

Permit expires February 21, 1986 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond: BLANKET	Agent: <i>LM</i>	Plat: <i>MA</i>	Casing: <i>MA</i>	Fee: <i>1409</i>
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*Margaret J. Hagan*  
 Administrator, Office of Oil and Gas

NOTE: Keep one copy of this permit posted at the drilling location.

See the reverse side of the APPLICANT'S COPY for instructions to the well operator.

