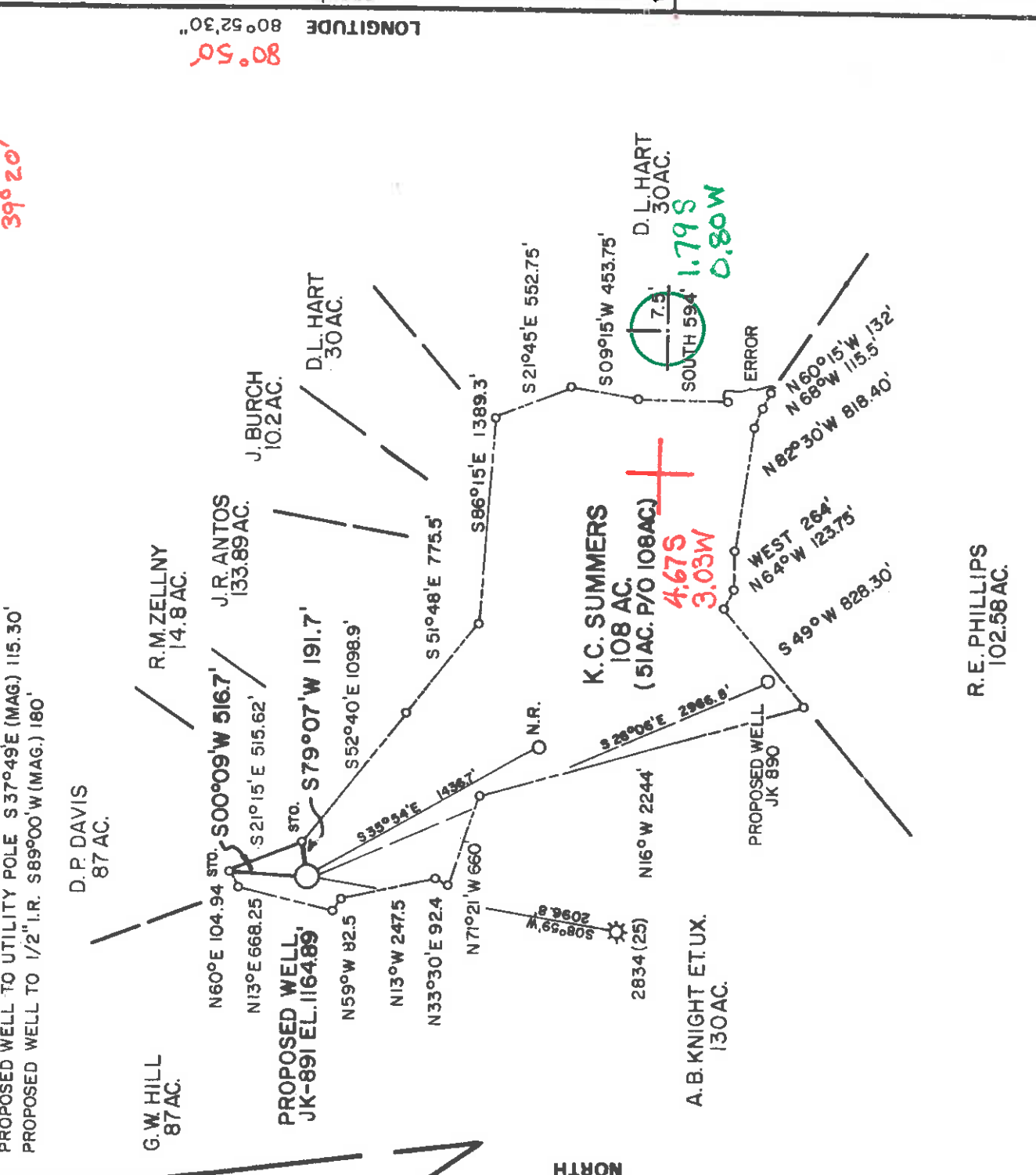


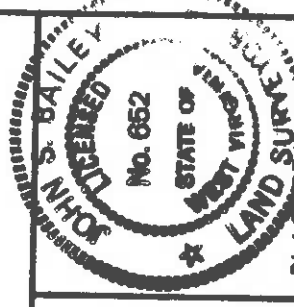
WELL REFERENCE TIES
 PROPOSED WELL TO UTILITY POLE S37°49'E (MAG) 115.30'
 PROPOSED WELL TO 1/2" I.R. S89°00'W (MAG.) 180'

LATITUDE 39°17'30" **39°20'**
 LONGITUDE 80°52'30" **80°50'**



FILE NO. MSES 84 - 351
 DRAWING NO. _____
 SCALE 1" = 1000'
 MINIMUM DEGREE OF ACCURACY 1 IN 200
 PROVEN SOURCE OF ELEVATION BM EL. 854' 4200' NW 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) John S. Bailey L.L.S. 652



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

DATE APRIL 5, 19 84
 OPERATOR'S WELL NO. JK-891
 API WELL NO. 47-017-3349
 STATE WV COUNTY CLAY PERMIT _____

STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
 (IF "GAS,") PRODUCTION STORAGE DEEP SHALLOW

LOCATION: ELEVATION 1164.89 WATER SHED DODDSON RUN
 DISTRICT CENTRAL COUNTY DODDRIDGE
 SURFACE OWNER PENNSBORO 75 (1976) S39 ACRES 108
 OIL & GAS ROYALTY OWNER K.C. SUMMERS ET AL. LEASE ACRES 51

PROPOSED WORK: DRILL CONVERT DRILL DEEPER DRILL 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 DEVONIAN SHALE ESTIMATED DEPTH 5995'
 WELL OPERATOR J.B.J. ENTERPRISES, INC 427 DESIGNATED AGENT RICHARD REDDECLIFF
 ADDRESS P.O. BOX 48 A DRESS BUCKHANNON, W.V. 26201

PREPARED BY MSES CONSULTANTS 6-6 Greenwood (89) CLARKSTURG, W.V.

RECEIVED

MAR 13 1985

OIL & GAS DIVISION
DEPT. OF MINES

State of West Virginia

Department of Mines
Oil and Gas Division

Date March 11, 1985

Operator's
Well No. JK-891Farm Summers
API No. 47 - 017 - 3349WELL OPERATOR'S REPORT
OF

DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

TYPE: Oil / Gas x / Liquid Injection / Waste Disposal /
(If "Gas," Production x / Underground Storage / Deep / Shallow x /)LOCATION: Elevation: 1164.89 Watershed Dotson Run
District: Central County Doddridge Quadrangle Pennsboro 7.5

COMPANY J&J Enterprises, Inc.

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

SIGNATED AGENT Richard Reddecliff

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

REFACE OWNER G.W. Hill

ADDRESS General Delivery, Greenwood, WV 26360

GENERAL RIGHTS OWNER K.C. Summers, etal C/O C.W.

ADDRESS Mutschelknaus, Salem, WV 26426

L AND GAS INSPECTOR FOR THIS WORK Harold

Miek Underwood ADDRESS Rt. # 2, Box 114, Salem, WV

PERMIT ISSUED 8/22/84 26426

DRILLING COMMENCED 2/6/85

DRILLING COMPLETED 2/14/85

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

Casing Tubing Size	Used in Drilling	Left in Well	Cement fill up Cu. ft.
20-16 Cord.			
13-10"	30.60	0	0 sks.
9 5/8			
8 5/8	1719.60	1719.60	
7			
5 1/2			
4 1/2	5435.85	5435.85	264 sks.
3			
2			
Liners used			

GEOLOGICAL TARGET FORMATION Devonian Shale

Depth of completed well 5999 feet Rotary x / Cable Tools

Water strata depth: Fresh 1638, 1905 feet; Salt 0 feet

Coal seam depths: None Is coal being mined in the area? No

OPEN FLOW DATA

Producing formation Alexander

Pay zone depth 5302-10 feet

Gas: Initial open flow Mcf/d Oil: Initial open flow Pbl/d

Combined Final open flow 1,008 Mcf/d Final open flow Bbl/d

Time of open flow between initial and final tests 4 hours

Static rock pressure 1700 psig (surface measurement) after 96 hours shut in

(If applicable due to multiple completion--)

Second producing formation Benson & Rieley Pay zone depth 4538-4639 5014-16 feet

Gas: Initial open flow Mcf/d Oil: Initial open flow Pbl/d

Final open flow Mcf/d Oil: 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

MAR 25 1985

(Continue on reverse side.)

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

Alexander: Perforations: 5302-10. (16 holes)
 Fracturing: 450 sks. 20/40 sand: Foam frac.
 Benson: Perforations: 5014-16 (8 holes)
 Fracturing: 300 sks. 20/40 sand: Foam frac
 Perforations: 4538-40 (4 holes) 4626-30 (6 holes) 4637-39 (4 holes)
 Fracturing: 450 sks. 20/40 sand: Foam frac.

BOTTOM HOLE PRESSURE Pf=Pwe XGLS

$t=60 + (0075 \times 5436) + 459.7=560$ $x=\frac{1}{53.35} \times 560 = 29901$ $= 0.000033$ $Pf=1700 \times 2.72$ (0.000033)
 (0.698) (4924) (0.9) = $1700 \times 2.72^{0.1} = 1700 \times 1.1$

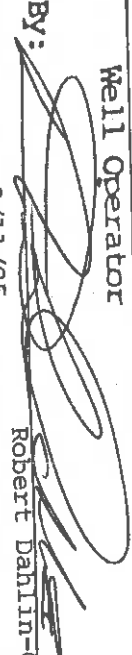
Pf=1870 psi

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS
Top Soil & Sand			0	4	1/2" stream @ 1638'
Red rock & sand			4	80	
Sandy shale & red rock			80	350	1" stream @ 1905
Sand, sandy shale & red rock			350	805	Gas ck @ 2224 No show
sand & sandy shale			805	1638	Gas ck @ 2565 No show
Sand & sandy shale			1638	1905	Gas ck @ 3524 No show
Sand & sandy shale			1905	2065	Gas ck @ 5041 No show
Sand & sandy shale			2065	2130	Gas ck @ 5350 No show
Big Lime			2130	2290	
Sand & sandy shale			2290	4538	
Sand & sandy shale			4538	4638	
Riley			4638	5014	
Sand & shale			5014	5016	
Benson			5016	5302	
Sand & shale			5302	5310	
Alexander			5310	5999	
Sand & shale					

Beallier T.D.

(Attach separate sheets as necessary)

J&J Enterprises, Inc.
 Well Operator
 BY: 
 Robert Dahlin-Geologist
 Date: 3/11/85

Note: Regulation 2.02(i) provides as follows:
 "The term 'log' or 'well log' shall mean a systematic
 detailed geological record of all formations, including
 sand, encountered in the drilling of wells."

1) Date: June 14, 19 84
 2) Operator's Well No. JK-891
 3) API Well No. 47 - 017 - 3349
 State County Permit



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

4) WELL TYPE: A Oil Gas Underground storage Deep Shallow
 B (If "Gas", Production)
 5) LOCATION: Elevation: 1164.89 Watershed: Dotson Run LKH 10 FF
 District: Central County: Doddridge Quadrangle: Pennsboro 7 1/2'
 6) WELL OPERATOR: J & J Enterprises, Inc. 7) DESIGNATED AGENT: Richard Reddecliff
 Address: P.O. Box 48 P.O. Box 48
 Buckhannon, WV 26201
 8) OIL & GAS INSPECTOR TO BE NOTIFIED
 Name: Harold Mike Underwood
 Address: Route 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):
 Devonian Shale

11) GEOLOGICAL TARGET FORMATION, 5995 feet
 12) Estimated depth of completed well, 5995 feet
 13) Approximate true depths: Fresh, 200 feet; salt, none
 14) Approximate coal seam depths: none

15) CASING AND TUBING PROGRAM Is coal being mined in the area? Yes

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	
Fresh water	8 5/8	ERW	23	X		1700'	1700'	to surface
Coal	8 5/8	ERW	23	X		1700'	1700'	to surface
Intermediate								
Production	4 1/2	J55	10.5	X		5995	5995	350 sacks
Tubing								as required by rule
Liners								Perforations: 15-01

OFFICE USE ONLY
 DRILLING PERMIT

Permit number 47-017-3349 Date August 22, 19 84

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 August 22, 1986 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond: 82	Agent: <i>[Signature]</i>	Plat:	Casing	Fee
BLANKET	20	MR	MU	3280

Margaret J. Haver
 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. File

