

1873 7/23/86

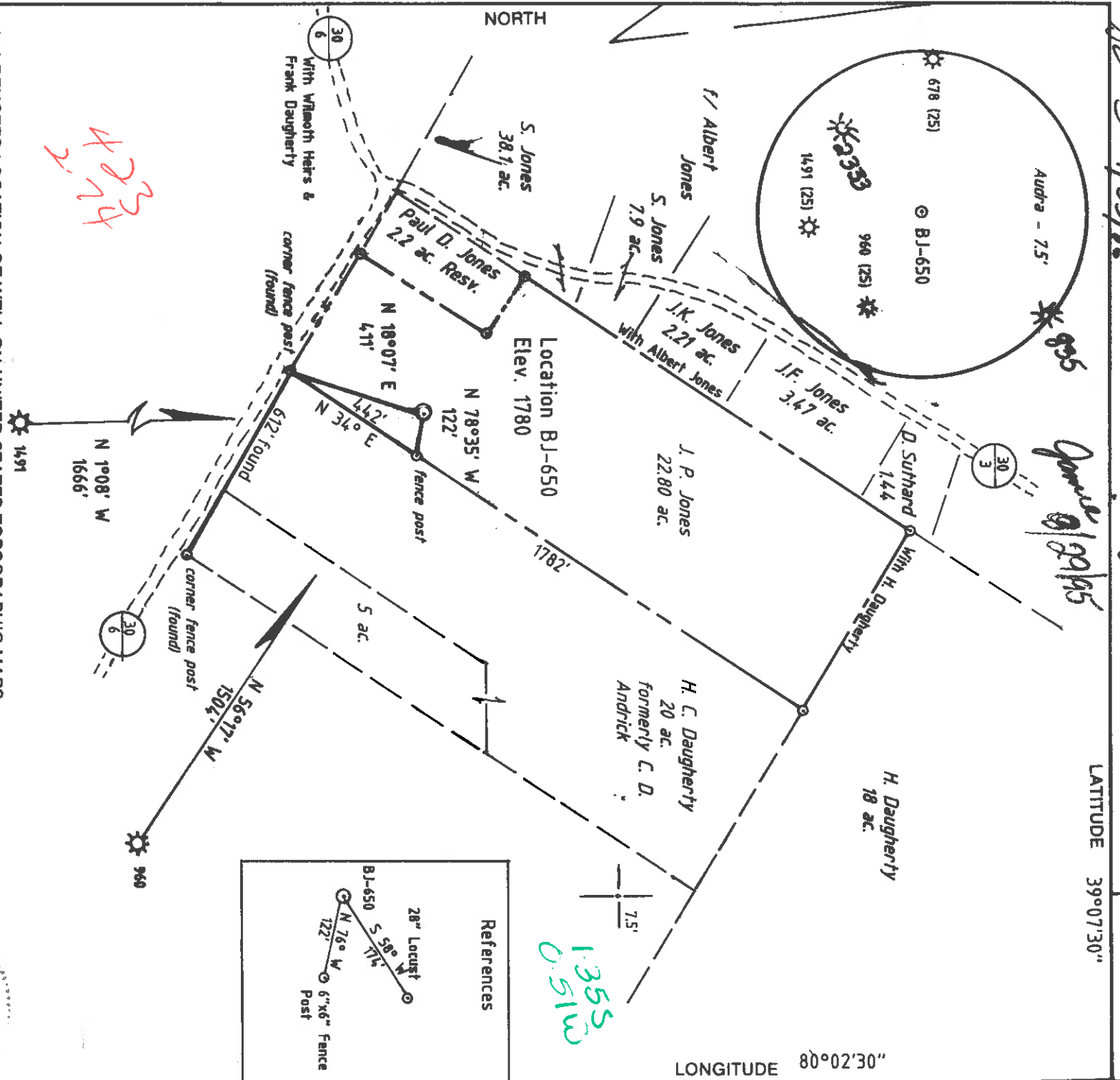
James G. Berry

LATITUDE 39°07'30"

2720'

LONGITUDE 80°02'30"

7110'



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

FILE NO. _____
 DRAWING NO. _____
 SCALE: 1" = 400'
 ANGLE DEGREE OF _____
 ACCURACY 1 in 200
 PROVEN SOURCE OF _____
 ELEVATION Spot elev. at road. ltr. 600' SW of location. Elev. 1746

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 ENERGY (SIGNED) James G. Berry
 R.P.E. _____ I.L.S. 669

PLACE SEAL HERE

STATE OF WEST VIRGINIA
 DEPARTMENT OF ENERGY
 OIL AND GAS DIVISION



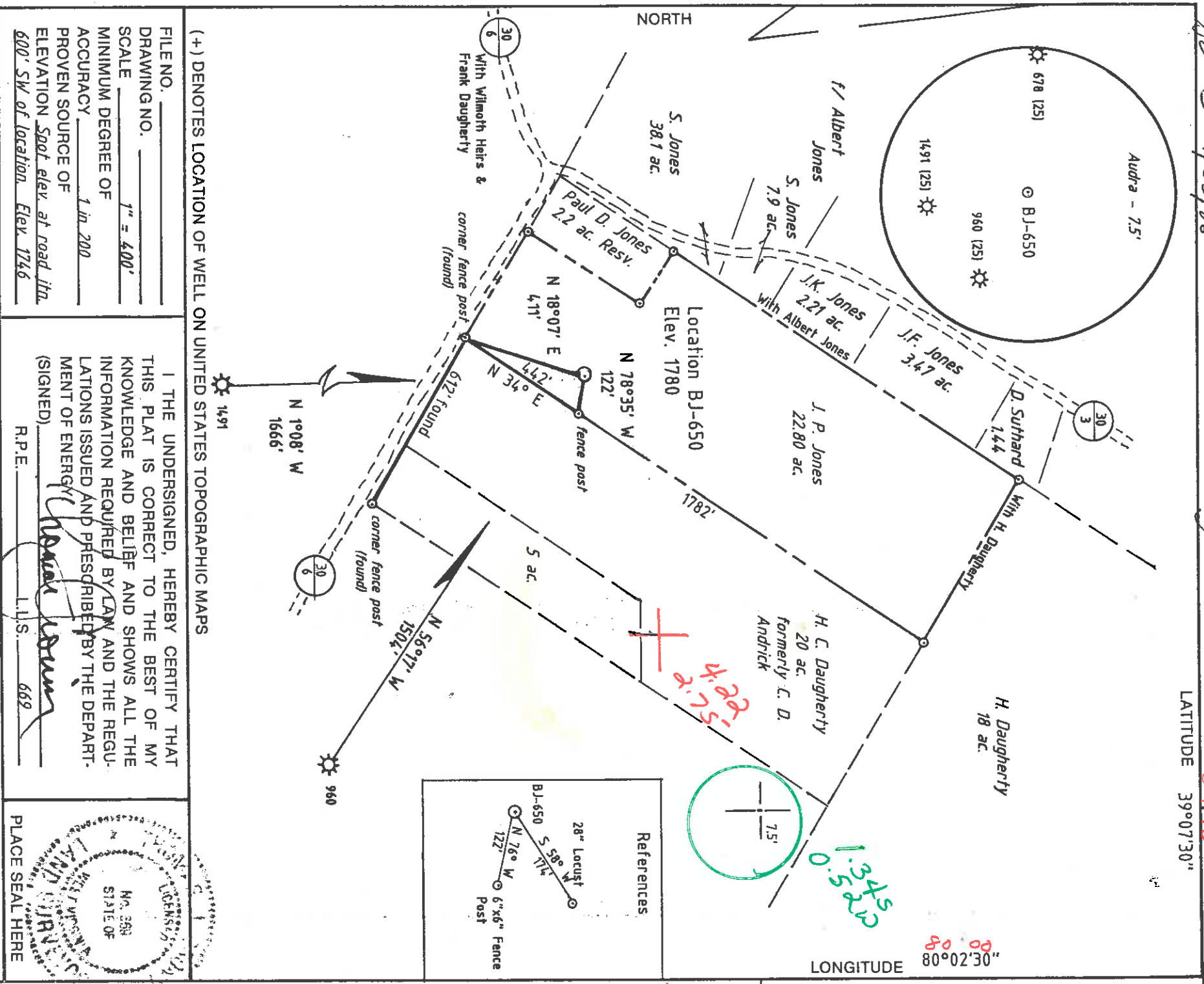
DATE July 11 19 86
 OPERATOR'S WELL NO. BJ-650
 API WELL NO. _____
 STATE 47 COUNTY Barbour PERMIT 00102303-F

WELL TYPE: OIL GAS LIQUID INJECTION _____ WASTE DISPOSAL _____
 (IF "GAS,") PRODUCTION STORAGE _____ DEEP _____ SHALLOW
 LOCATION: ELEVATION 1780 WATERSHED _____ COUNTY Barbour TYPICAL VALLEY RIVER _____
 DISTRICT Phillipi
 QUADRANGLE Audra - 7.5' W&A 92
 SURFACE OWNER J Paul Jones LEASE ACREAGE _____ ACREAGE 22.8
 OIL & GAS ROYALTY OWNER J Paul Jones LEASE ACREAGE _____ ACREAGE 22.8
 PROPOSED WORK: DRILL CONVERT _____ DRILL DEEPER _____ REDRILL _____ FRACTURE OR STIMULATE _____ PLUG OFF OLD FORMATION _____ PERFORATE NEW _____
 FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY Temporary plug and spike. Spoke sand's' top)
 PLUG AND ABANDON CLEAN OUT AND REPLUG _____ ESTIMATED DEPTH 5400'
 TARGET FORMATION Haverly, Benson DESIGNATED _____ ADDRESS _____
 WEI _____
 AD Berry Energy Consultants & Mgrs, Inc. _____
310 Stiles Street-P.O. Box 5 _____
Charleston WV 26109-0005 _____
 PHONE: 304-622-3450 _____

PERMIT 00102303-F

15813 7/23/86

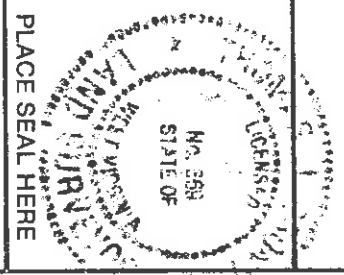
LATITUDE 39°10' 2720"
LONGITUDE 80°02'08" 7110'



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

FILE NO. _____
DRAWING NO. _____
SCALE 1" = 400'
MINIMUM DEGREE OF ACCURACY 1 in. 200'
PROVEN SOURCE OF ELEVATION Spot elev. at road ltn. 600' SW of location Elev. 1746

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 ENERGY (SIGNED) *Harold J. Brown*
R.P.E. _____ L.I.S. 669



STATE OF WEST VIRGINIA
DEPARTMENT OF ENERGY
OIL AND GAS DIVISION



DATE July 11, 19 86
OPERATOR'S WELL NO. BJ-650
API WELL NO. 47-001-2303

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
 LOCATION: ELEVATION 1780 (IF "GAS") PRODUCTION STORAGE DEEP SHALLOW
 DISTRICT Phillipi COUNTY Barbour STATE 47 COUNTY 001 PERMIT 2303
 QUADRANGLE Audra - 7.5' WATERSHED Tygart Valley River
 SURFACE OWNER J. Paul Jones ACREAGE 22.8
 OIL & GAS ROYALTY OWNER J. Paul Jones ACREAGE 22.8
 LEASE NO. 2567 LEASE ACREAGE _____
 PROPOSED WORK: DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE PLUG OFF OLD FORMATION PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _____
 AUG 4 1986 PERMIT

PLUG AND ABANDON CLEAN OUT AND REPLUG _____
 TARGET FORMATION Haverly, Benson ESTIMATED DEPTH 5400'
 WELL OPERATOR J and J Enterprises, Inc. DESIGNATED AGENT Richard Reddecliffe
 ADDRESS c/o Berry Consultants and Mgrs., Inc. P.O. Box 48
P.O. Box 5, Clarksburg, WV 2601
Buckhannon

b-6 *Phillipi* *(309)*

RECEIVED

API # 47- 1-02303 F

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas

JUL 11 1996

Permitting
Well Operator's Report of Well Work
Operator Well No.: BJ-650

Farm name: Office of Oil & Gas JOHN PAUL
LOCATION: Elevation: 1,780.00 Quadrangle: AUDRA

District: PHILIPPI County: BARBOUR
Latitude: 7110 Feet South of 39 Deg. 7 Min. 30 Sec.
Longitude 2720 Feet West of 80 Deg. 2 Min. 30 Sec.

Company: BERRY ENERGY, CONSULTANTS
310 STILES ST., P.O. BOX 5
CLARKSBURG, WV 26302-0005

Agent: DAVID B. BERRY

Inspector: PHILLIP TRACY
Permit Issued: 08/30/95

Well work Commenced: 09/25/95

Well work Completed: 10/13/95

Verbal Plugging

Permission granted on:

Rotary X Cable _____ Rig _____

Total Depth (feet) 5404

Fresh water depths (ft) 130

Salt water depths (ft) 0

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill up Cu. Ft.
NO CHANGE IN CASING			
11 3/4	30	0	0 SKS
8 5/8	863	863	200 SKS
4 1/2	4729.45	4729.45	285 SKS

Is coal being mined in area (Y/N)? N
Coal Depths (ft): 175, 80, 230, 33, 443, 45

OPEN FLOW DATA

Producing formation Recompletion of 4th Pay zone depth (ft) 2162-2166
Gas: Initial open flow N/A MCF/d Oil: Initial open flow N/A Bbl/d
Final open flow 600 MCF/d Final open flow N/A Bbl/d
Time of open flow between initial and final tests 4 Hours
Static rock Pressure 700 psig (surface pressure) after 24 Hours

Second producing formation Gordon Pay zone depth (ft) 2004-2008
Gas: Initial open flow * MCF/d Oil: Initial open flow N/A Bbl/d
Final open flow * MCF/d Final open flow N/A Bbl/d
Time of open flow between initial and final tests _____ Hours
Static rock Pressure * psig (surface pressure) after * Hours

* See above, zones comingled - Prior to recompletion, the well was cemented with 144 sacks of 50/50 Poz through 4 squeeze holes at 2244-2245'.
NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1) DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2) THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

FOR: BERRY ENERGY, CONSULTANTS & MGRS. INC.

BY: David B. Berry
Date: July 9, 1996

JUL 11 1996

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

Set Solid plug at 2251', Shot 4 Squeeze holes at 2244-2245'
Cemented well with 144 sacks 50/50 Poz.

4th Sand Perforated from 2162-2166 - 14 holes. Frac with 50,000 lbs. of 20/40
253 barrels of H₂O and 462,630 SCF N₂.

Gordon Perforate from 2004-2008', 14 holes, frac with 50,000 lbs of 20/40
208 barrels of H₂O and 425,112 SCF N₂.

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS
Conductor			0	18	
Sand			18	175	1" stream @ 130'
Coal			175	180	
Sand			180	230	Gas ck @ 1438 No Show
Coal			230	233	
Sand & Sandy shale			233	350	Gas ck @ 2272 16/10-7" w/water 1,708,000 cu. ft.
Sandy Shale & Sand			350	443	
Coal			443	445	Gas ck @ 3054 2/10-7" w/water 603,000 cu. ft.
Hard Sand			445	530	
Coal			530	534	
Sand & Black Shale			534	755	Gas ck @ 3995 4/10-7" w/water 853,000 cu. ft.
Red Rock, Shale & Sand			755	795	
Red Rock, Sand & Shale			795	1210	
Big Lime			1210	1315	Gas ck @ 4622 12/10-7" w/water 1,478,000 cu. ft.
Sand & Sandy Shale			1315	1500	
Sand & Sandy Shale			1500	1690	
Sand & Sandy shale & Red Rock			1690	1985	Gas Ck @ 5151 20/10-2" w/mercury 696,000 cu. ft.
Sand, Red Rock & Shale			1985	2215	
5th Sand			2215	2245	
Sand & Shale			2245	3976	Gas ck @ drill collars 12/10-2" w/mercury 622,000 cu. ft.
Benson			3976	3982	
Sandy Shale			3982	4641	
3rd Elk			4641	4648	
Sand & Sandy Shale			4648	5404 TD	



State of West Virginia
Department of Mines
Oil and Gas Division

Date October 1, 1986
Operator's BJ-650
Well No.
Farm J. Paul Jones
API No. 47 - 001 - 2303



DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

WELL OPERATOR'S REPORT

OF
DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

TYPE: Oil / Gas x / Liquid Injection / Waste Disposal / Undergrnd Storage / Deep / Shallow x /
(If "Gas," production x /

WATERSHED: Watershed Rygart Valley River
Elevation: 1780
District: Phillippi County Barbour Quadrangle Audra 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
OFFICE OWNER John Paul Jones
ADDRESS Rt. # 1, Box 283, Phillippi, WV 26416
GENERAL RIGHTS OWNER Same as surface
ADDRESS _____
OIL AND GAS INSPECTOR FOR THIS WORK Phillip
Tracy ADDRESS Elkins, WV 26241
PERMIT ISSUED 7/28/86
DRILLING COMMENCED 8/12/86
DRILLING COMPLETED 8/19/86
IF APPLICABLE: PLUGGING OF DRY HOLE ON CONTINUOUS PROGRESSION FROM DRILLING OR REMORKING. VERBAL PERMISSION OBTAINED _____

Casing & Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft.
Size 20-16 Cord.			
13-10"	30	0	0 sks.
9 5/8			
8 5/8	863	863	200 sks.
7			
5 1/2			
4 1/2	4,729.45	4,729.45	285 sks.
3			
2			
Liners used			

GEOLOGICAL TARGET FORMATION Haverly - Benson Depth feet
Depth of completed well 5404 feet Rotary x / Cable Tools _____
Water strata depth: Fresh 130 feet; Salt 0 feet
Coal seam depths: 175-80, 230-33, 443-45 Is coal being mined in the area? No

OPEN FLOW DATA
Producing formation 3rd Elk Pay zone depth 4641-52 feet
Gas: Initial open flow _____ Mcf/d Oil: Initial open flow _____ Bbl/d
Final open flow 1,320 Mcf/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests 4 hours
Static rock pressure 1250 psig (surface measurement) after 96 hours shut in
(If applicable due to multiple completion--)
Second producing formation Benson Pay zone depth 3976.5-81.5 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 _____ hours
Static rock pressure _____ psig (surface measurement) after _____ hours shut in

(Continue on reverse side)
OCT 20 1986

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

3rd. Elk: Perforations: 4648-52 (9 holes) 4641-42 (4 holes)
Foam frac
Benson: Perforations: 3976.5 - 81.5 (14 holes)
Foam frac

BOTTOM HOLE PRESSURE Pf=PweXGELS

$$t=60 + (0.0075 \times 4729) + 459.7 = 555 \quad X=53.35 \times 555 = 29609 = 0.000034 \quad Pf=1250 \times 2.72 \quad (0.000034)$$

$$(0.6) (43.15) (0.9) = 1250 \times 2.72 \quad 0.08 = 1250 \times 1.08$$

Pf= 1350

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fractures and salt water, coal, oil and gas
Conductor			0	18	1" stream @ 130'
Sand			18	175	Gas ck @ 1438 No show
Coal			175	180	
Sand			180	230	Gas ck @ 2272 16/10-7" w/water 1,708,000 cu.ft.
Coal			230	233	
Sand & sandy shale			233	350	
Sandy shale & sand			350	443	
Coal			443	445	Gas ck @ 3054 2/10-7" w/water 603,000 cu.ft.
Hard sand			445	530	
Coal			530	534	
Sand & black shale			534	755	Gas ck @ 3995 4/10-7" w/water 853,000 cu.ft.
Red rock, shale & sand			755	795	
Red rock, sand & shale			795	1210	
Big Lime			1210	1315	Gas ck @ 4622 12/10-7" w/water 1,478,000 cu.ft.
Sand & sandy shale			1315	1500	
Sand & sandy shale			1500	1690	
Sand, sandy shale & red rock			1690	1985	Gas ck @ 5151 20/10-2" w/mercury 696,000 cu.ft.
Sand, red rock & shale			1985	2215	
5th Sand			2215	2245	
Sand & shale			2245	3976	Gas ck @ drill collars 12/10-2" w/mercury 622,000 cu.ft.
Benson			3976	3982	
Sandy shale			3982	4641	
3rd Elk			4641	4648	
Sand & sandy shale			4648	5404 TD.	

(Attach separate sheets as necessary)

J & J Enterprises, Inc.
Well Operator

BY: 
Date: 10/1/86 Robert Danlin - Geologist

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 all, encountered in the drilling of a well."

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JUL 21 1986



1) Date: July 14, 1986
2) Operator's Well No. BJ-650
3) API Well No. 47-001-2303
State County Permit

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

4) WELL TYPE: A Oil / Gas / B (If "Gas", Production / Underground storage / Deep / Shallow /
Elevation: 1780' / Tygart Valley River
5) LOCATION: Phillipi 5 / Barbour / Quadrangle: Audra - 7.5 225
District: J & J Enterprises, Inc. / County: 2450 / DESIGNATED AGENT Richard M. Reddecliffe
6) WELL OPERATOR: J & J Enterprises, Inc. / P.O. Box 48
Address: P.O. Box 5 / Buckhannon, Wv 26201
Clarksbury, Wv 26301

8) OIL & GAS INSPECTOR TO BE NOTIFIED: Donald Ellis
Name: Donald Ellis
Address: 2604 Crab Apple Lane / Fairmont, Wv 26554

9) DRILLING CONTRACTOR: Name: / Address: /
10) PROPOSED WELL WORK: Drill / deeper / Redrill / Stimulate /
Plug off old formation / Perforate new formation /

11) GEOLOGICAL TARGET FORMATION, Haverly - Benson
Other physical change in well (specify) _____
12) Estimated depth of completed well, 5400 feet
13) Approximate trata depths: Fresh, 1500 feet; salt, None 41500 feet.
14) Approximate coal seam depths: 260' - 350' Is coal being mined in the area? Yes No

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	API	42#	X		32'	Pulled	
Fresh water								
Coal	8 5/8	API	24#	X		1400'	TO SURFACE	Sizes Per Rule 15.05
Intermediate								
Production	4 1/2	API	10#	X		5350'	900 SKS	Depths set OR AS REQUIRED BY Rule
Tubing								
Lin.								Perforations: 15.01
								Top Bottom

OFFICE USE ONLY
DRILLING PERMIT

Permit number 47-001-2303 Date July 28, 1986

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 July 28, 1988 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond:	Agent:	Plat:	Casing:	Fee:	WPGR:	SFF:	Other:
	KB	KB	KB	10706	KB	KB	

NOTE: Keep one copy of this permit posted at the drilling location. Director, Division of Oil and Gas File

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

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FORN ENVIRONMENTAL PROTECTION

001-2303-F

Page 5 of 5

Received 08/30/92

EXPIRES 08/30/92

1800 (5) 225

STATE OF WEST VIRGINIA

DEPARTMENT OF ENERGY, DIVISION OF OIL AND GAS

WELL WORK PERMIT APPLICATION

Office of Oil & Gas

Operator's Well Number: BJ-650

3) Elevation: 1780

Well type: (a) Oil / or Gas X /

(b) If Gas: Production X / Underground Storage /

Deep / Shallow X /

Proposed Target Formation(s): Haverly - Benson

Proposed Total Depth: 5404 feet

Approximate fresh water strata depths: 130'

Approximate salt water depths: -0-

Approximate coal seam depths: 175'; 80'; 230'; 33'; 443-45'

Does land contain coal seams tributary to active mine? Yes / No X /

Proposed Well Work: See note on back of sheet

Partial Plug Back of the New Terminations Conclude

CASING AND TUBING PROGRAM

TYPE	SPECIFICATIONS	FOOTAGE INTERVALS	CEMENT			
	Size	Grade	Weight per ft.	For drilling	Left in well	Fill-up (cu. ft.)
Conductor	11 3/4	API	42#		Pulled	
Fresh Water						
Coal						
Intermediate	8 5/8	API	24#	863'	863'	200SKS.
Production	4 1/2	API	10#	4729'	4729'	285 SKS.
Tubing						

Liners The above casing program is what was actually ran as reported on IV35 dated 10/1/86 There will be no change in casing program PACKERS Kind

Sizes Depths set

FOR DIVISION OF OIL AND GAS USE ONLY

Fee(s) paid: Plat

Well Work Permit

Bond

Reclamation Fund Agent

00332188

32

1) Date: June 24, 1995
2) Operator's well number BJ-650
3) API Well No: 47 - 001 - 2303-F
State - County - Permit

Permitting
Office of Oil & ~~GAS~~ STATE OF WEST VIRGINIA

DIVISION OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS

NOTICE AND APPLICATION FOR A WELL WORK PERMIT

- 4) Surface Owner(s) to be served:
- (a) Name John Paul Jones 5) (a) Coal Operator: NON-OPERATED
Address Rt. 1, Box 283 Name _____
Phillippi, WV 26416 Address _____
- (b) Name _____ (b) Coal Owner(s) with Declaration
Address _____ Name Eastern Associated Coal Corp.
Address P. O. Box 1233
Charleston, WV 25234
~~XXXXXX~~ Attn: Mgr. of properties
Address _____
- (c) Name _____ (c) Coal Lessee with Declaration
Address _____ Name _____
Address _____
- 6) Inspector Phillip Tracy
Address Rt. 2, Box 37A
Montrose, WV 26283
Telephone (304) - 636-8798

TO THE PERSON(S) NAMED ABOVE TAKE NOTICE THAT:

Included is the lease or leases or other continuing contract or contracts by which I hold the right to extract oil and gas OR

Included is the information required by Chapter 22B, Article 1, Section 8(d) of the Code of West Virginia (see page 2)

I certify that as required under Chapter 22B of the West Virginia Code I have served copies of this notice and application, a location plat, and accompanying documents pages 1 through _____ on the above named parties, by:

- _____ Personal Service (Affidavit attached)
- _____ Certified Mail (postmarked postal receipt attached)
- _____ Publication (Notice of Publication attached)

I have read and understand Chapter 22B and 38 CSR 11-18, and I agree to the terms and conditions of any permit issued under this application.

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete.

I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Well Operator Betty Energy Consultants & Mgr's., Inc.

By: Betty S. Energy

Its: President

Address P. O. Box 5

Clarksburg, WV 26302-0005

Telephone (304) 622-3450

Subscribed and sworn before me this 2nd day of June, 1995

Mary Ann Cowger Notary Public

