

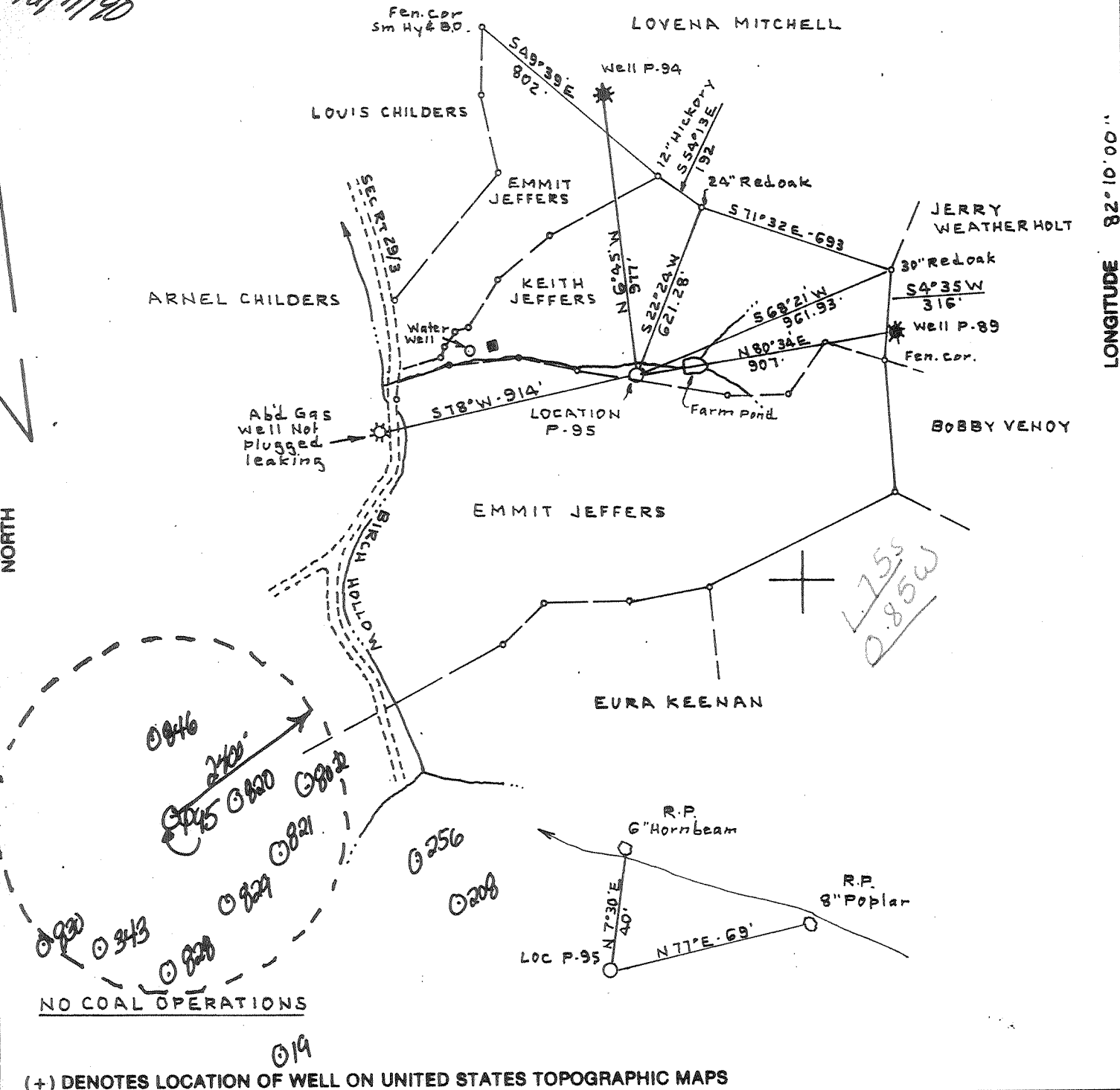
Janice  
12/11/90

4500'

LATITUDE 38°25'00"

LONGITUDE 82°01'28" 0206

NORTH



NO COAL OPERATIONS

019

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

FILE NO. BK 122 PG 25  
 DRAWING NO. \_\_\_\_\_  
 SCALE 1" = 500'  
 MINIMUM DEGREE OF ACCURACY 1:200  
 PROVEN SOURCE OF ELEVATION USGS BM 149 JJS  
 EI 676

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) C. J. Valley Jr.  
 R.P.E. \_\_\_\_\_ I.S. 92

PLACE SEAL HERE

**STATE OF WEST VIRGINIA**  
 DEPARTMENT OF ENERGY  
 OIL AND GAS DIVISION



DATE NOV 9, 19 90  
 OPERATOR'S WELL NO. P-95  
 API WELL NO. \_\_\_\_\_

WELL TYPE: OIL  GAS  LIQUID INJECTION \_\_\_\_\_ WASTE DISPOSAL \_\_\_\_\_  
 (IF "GAS,") PRODUCTION  STORAGE \_\_\_\_\_ DEEP \_\_\_\_\_ SHALLOW   
 LOCATION: ELEVATION 715.59' WATERSHED BIRCH HOLLOW OF FUDGES CREEK  
 DISTRICT GRANT COUNTY CABELL  
 QUADRANGLE MILTON 45' WC  
 SURFACE OWNER KEITH JEFFERS, ETAL ACREAGE 17.1  
 OIL & GAS ROYALTY OWNER KEITH JEFFERS, ETAL LEASE ACREAGE 17.1  
 LEASE NO. 2653

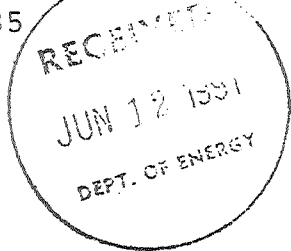
PROPOSED WORK: DRILL  CONVERT \_\_\_\_\_ DRILL DEEPER \_\_\_\_\_ REDRILL \_\_\_\_\_ FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION \_\_\_\_\_ PERFORATE NEW FORMATION \_\_\_\_\_ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_\_\_

PLUG AND ABANDON \_\_\_\_\_ CLEAN OUT AND REPLUG \_\_\_\_\_  
 TARGET FORMATION BERA ESTIMATED DEPTH 2650'  
 WELL OPERATOR SOUTHEASTERN GAS CO 821 DESIGNATED AGENT FRED RADFORD  
 ADDRESS PO BOX 2347 CHARLESTON WV 25328 ADDRESS PO BOX 2347 CHARLESTON WV 25328  
 6-6 Merritt Creek - Salt Rock (206)

DEC 14 1990

COUNTY NAME PERMIT

FORM WV-9 48673



State of West Virginia  
DEPARTMENT OF ENERGY  
Division of Oil and Gas

Well Operator's Report of Well Work

Farm name: JEFFERS, KEITH ET AL Operator Well No.: P-95

LOCATION: Elevation: 715.59 Quadrangle: MILTON

District: GRANT County: CABELL  
Latitude: 9200 Feet South of 38 Deg. 25Min. 0 Sec.  
Longitude 4500 Feet West of 82 Deg. 10 Min. 0 Sec.

Company: SOUTHEASTERN GAS CO.  
P. O. BOX 2347  
CHARLESTON, WV 25328-2347

Agent: FRED A. RADFORD

Inspector: RICHARD CAMPBELL  
Permit Issued: 12/12/90  
Well work Commenced: 1-26-91  
Well work Completed: 2-19-91  
Verbal Plugging  
Permission granted on:  
Rotary  Cable \_\_\_\_\_ Rig  
Total Depth (feet) 2,480 ft.  
Fresh water depths (ft) 93 ft.

Salt water depths (ft) 1,315 ft.

Is coal being mined in area (Y/N)? N  
Coal Depths (ft): N/A

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
8 5/8"	772 ft.	772 ft.	205 sks.
4 1/2"	2426 ft.	2426 ft.	205 sks.

OPEN FLOW DATA

Producing formation Berea Sandstone Pay zone depth (ft) 2378'-2388'  
Gas: Initial open flow Show MCF/d Oil: Initial open flow Show Bbl/d  
Final open flow Show MCF/d Final open flow 20 Bbl/d  
Time of open flow between initial and final tests 48 Hours  
Static rock Pressure 510 psig (surface pressure) after 24 Hours

Second producing formation \_\_\_\_\_ Pay zone depth (ft) \_\_\_\_\_  
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 pressure) after \_\_\_\_\_ Hours

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: Fred A. Radford  
SOUTHEASTERN GAS CO.

By: Fred A. Radford-General Manager

Date: February 26, 1991

JUN 17 1991

JUN 17 1991

**BEREA PERFORATIONS:** 2375'-2384' (12 holes)

Ballout Berea with Acid/N<sub>2</sub>

**75 QUALITY FOAM FRAC**

37,500 lbs. 20/40 Sand  
457,000 scf-N<sub>2</sub>

Breakdown: 2395 lbs. Injection Rate: 4.5 bbls./min.  
Avg. Pressure: 1987 lbs. Total Fluid: 249 bbls.  
ISIP: 2076 lbs.  
5 min. SIP: 1956 lbs.  
15 min. SIP: 1847 lbs.

FORMATIONS	DRILLER'S RECORD		REMARKS
	TOP	BOTTOM	
Topsoil	0	15	
Sand & Shale	15	687	Fresh Water @ 93'
Sand	687	846	
Shale & Sand	846	1266	
Salt Sand	1266	1447	Salt Water @ 1315'
Shale	1447	1473	
Sand	1473	1492	
Shale	1492	1553	
Little Lime	1553	1571	
Pencil Cave Shale	1571	1582	
Big Lime	1582	1777	
Shaley Lime	1777	1840	
Injun Sand	1840	1914	
Weir Shale	1914	2330	
Sunbury (Coffee) Shale	2330	2374	
Berea Sandstone	2374	2388	Show of Oil & Gas @ 2382'
Devonian Shale	2388	2460	
		2460	Driller's TD
		2480	Logger's TD

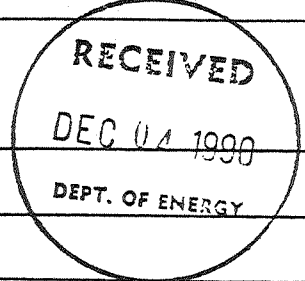
9-5-11

Dr. T. H. A.

011-0848  
 Issued 12/12/90  
 Expires 12/12/92  
 Page \_\_\_ of \_\_\_

**STATE OF WEST VIRGINIA**  
**DEPARTMENT OF ENERGY, DIVISION OF OIL AND GAS**  
**WELL WORK PERMIT APPLICATION**

- 1) Well Operator: <sup>821</sup> Southeastern Gas Company 46400 (3) 476
- 2) Operator's Well Number: P-95 3) Elevation: 715.59'
- 4) Well type: (a) Oil X / or Gas    /  
 (b) If Gas: Production    / Underground Storage    /  
 Deep    / Shallow    /
- 5) Proposed Target Formation(s): <sup>375</sup> Berea Sandstone
- 6) Proposed Total Depth: 2650 feet
- 7) Approximate fresh water strata depths: 180'
- 8) Approximate salt water depths: 1570'
- 9) Approximate coal seam depths: N/A
- 10) Does land contain coal seams tributary to active mine? Yes    / No X /
- 11) Proposed Well Work: Drill and Complete New Well
- 12)

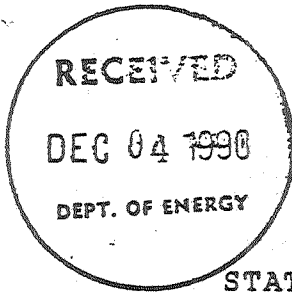


**CASING AND TUBING PROGRAM**

TYPE	SPECIFICATIONS			FOOTAGE INTERVALS		CEMENT
	Size	Grade	Weight per ft.	For drilling	Left in well	
Conductor						
Fresh Water	8 5/8"	K	24	780'	780'	220 <i>38CSR18 11.3</i>
Coal						
Intermediate						
Production	4 1/2"	K	10.5	2650'	2650'	250 <i>38CSR18 11.2.2</i>
Tubing						
Liners						

PACKERS : Kind \_\_\_\_\_  
 Sizes \_\_\_\_\_  
 Depths set \_\_\_\_\_

1290  
 36  
 For Division of Oil and Gas Use Only  
 Fee(s) paid:  Well Work Permit  Reclamation Fund  WPCP  
 Plat  WW-9  WW-2B  Bond Blanket one  Agent



1) Date: December 4, 1990  
2) Operator's well number P-95  
3) API Well No: 47 - 011 - 0848  
State - County - Permit

STATE OF WEST VIRGINIA  
DEPARTMENT OF ENERGY, DIVISION OF OIL AND GAS

NOTICE AND APPLICATION FOR A WELL WORK PERMIT

- 4) Surface Owner(s) to be served:
- (a) Name Keith R. Jeffers, Etal  
Address Route 1, Box 178A  
Barboursville, WV 25504
  - (b) Name Emmit E. Jeffers  
Address Box 575  
Ceredo, WV 25507
  - (c) Name \_\_\_\_\_  
Address \_\_\_\_\_
- 5) (a) Coal Operator:  
Name None  
Address \_\_\_\_\_
- (b) Coal Owner(s) with Declaration  
Name Keith R. Jeffers, Etal  
Address Route 1, Box 178A  
Barboursville, WV 25504  
Name Emmit E. Jeffers  
Address Box 575  
Ceredo, WV 25507
- (c) Coal Lessee with Declaration  
Name None  
Address \_\_\_\_\_
- 6) Inspector Richard S. Campbell  
Address Route 1 Box 21-B  
Duck, W.V. 25063  
Telephone (304)-364-8065

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 Southeastern Gas Company  
By: [Signature]  
Its: Vice President  
Address P.O. Box 2347  
Charleston, W.V. 25328  
Telephone (304) 343-9566

Subscribed and sworn before me this 4th day of December, 1990

[Signature] Notary Public  
My commission expires May 24, 1993