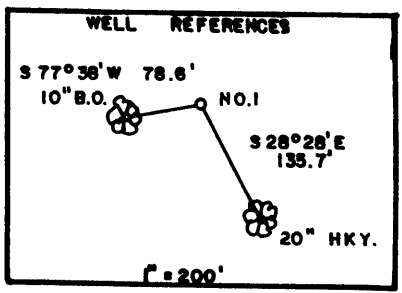


JEFFERS LEASE 44.72 of 82.72 AC. ±

LATITUDE 39°25'00"

*Jamie
12/6/91*

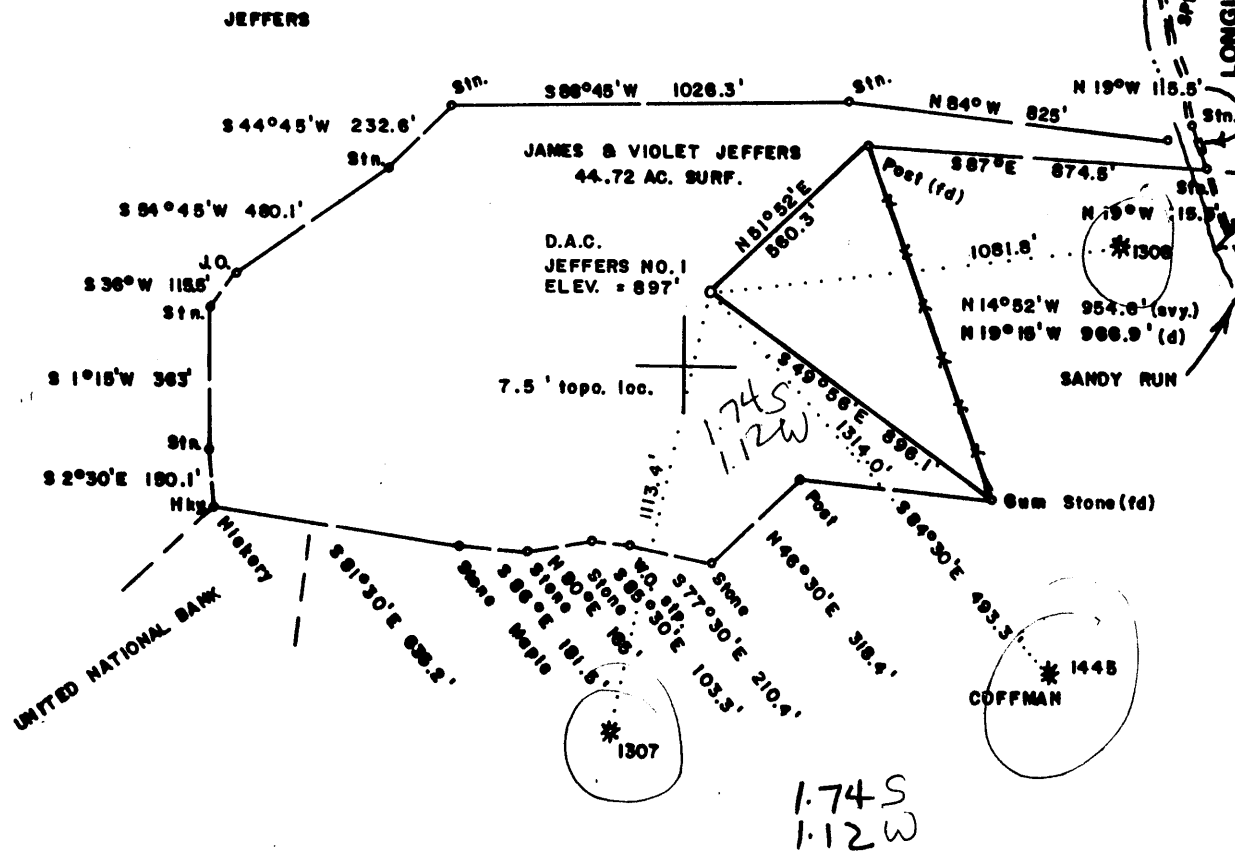
NOTE: ALL WELLS WITHIN 1200' ARE SHOWN



SVY. NORTH

LONGITUDE 80°45'00"

NORTH



FILE NO. _____
 DRAWING NO. _____
 SCALE 1" = 500'
 MINIMUM DEGREE OF ACCURACY 1/200
 PROVEN SOURCE OF ELEVATION B.M. NORTH OF LEASE ELEV. = 733'

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) Mark C. Echard
 MARK C. ECHARD
 R.P.E. _____ L.L.S. 490

PLACE SEAL HERE

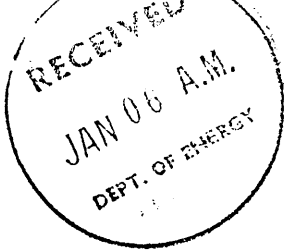
(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS
 FORM IV-6 (8-78)



DATE NOVEMBER 21, 19 91
 OPERATOR'S WELL NO. JEFFERS NO. 1
 API WELL NO. 47-095-01489
 STATE COUNTY PERMIT

STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
 ("GAS") PRODUCTION: STORAGE DEEP CHALLOW
 LOCATION: ELEVATION 897' WATER SHED SANDY RUN
 DISTRICT McELROY 5 COUNTY TYLER
 QUADRANGLE SHIRLEY 7.5' WV 100 EC
 SURFACE OWNER JAMES & VIOLET JEFFERS ACREAGE 44.72 of 82.72
 OIL & GAS ROYALTY OWNER JAMES & VIOLET JEFFERS, et al LEASE ACREAGE 44.72 of 82.72
 LEASE NO. _____
 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 GORDON ESTIMATED DEPTH 2800'
 WELL OPERATOR D.A.C. 280 DESIGNATED AGENT KENNETH MASON
 ADDRESS P.O. BOX 99 ADDRESS P.O. BOX 99
ALMA, W. VA. 26302 ALMA, W. VA. 26302



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

TM6

Well Operator's Report of Well Work

Recorded

Farm name: JEFFERS, JAMES E.

Operator Well No.: JEFFERS #1

LOCATION: Elevation: 897.00

Quadrangle: SHIRLEY

District: MCELROY

County: TYLER

Latitude: 9080 Feet South of 39 Deg. 25Min. 0 Sec.
Longitude 5840 Feet West of 80 Deg. 45 Min. 0 Sec.

Company: DRILLING APPALACHIAN CORP
P. O. BOX 99
ALMA, WV 26320-0099

Agent: KENNETH R. MASON

Inspector: MIKE UNDERWOOD
Permit Issued: 12/09/91
Well work Commenced: 12/11/91
Well work Completed: 12/15/91
Verbal Flushing _____
Permission granted on: _____
Rotary Cable _____ Rig _____
Total Depth (feet) 2725'
Fresh water depths (ft) 95
Salt water depths (ft) 1650
Is coal being mined in area (Y/N)? N
Coal Depths (ft): _____

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill Cu. Ft.
8-5/8"	120.20	120.20	50sks CTS
5-1/2"	1845.50	1845.50	330sks CTS

OPEN FLOW DATA

Producing formation Gordon Sand Pay zone depth (ft) 2632-34
 Gas: Initial open flow 130 MCF/d Oil: Initial open flow 0 Bbl/d
 Final open flow 105 MCF/d Final open flow 0 Bbl/d
 Time of open flow between initial and final tests 24 Hours
 Static rock Pressure 875 psig (surface pressure) after 48 Hours

Second producing formation N/A 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: DRILLING APPALACHIAN CORP.

By: Kenneth R. Mason JAN 10 1992
Date: 12-27-91

This well was completed natural in the Gordon Sand.

Permian Sands/Shales	0	500
Pennsylvanian Sands/Shales	500	1817
Big Lime	1818	1892
355 Keener Sand	1893	1912
Shale	1913	1927
371 Big Injun Sand	1928	2036
Shale	2037	2181
387 Weir Sand	2182	2264
Shale	2265	2380
413 Gantz Sand	2381	2386
Shale/Siltstone	2387	2591
419 Gordon Sands	2592	2634
Shale	2635	2725
TD		2725

411

JAN 10 1892

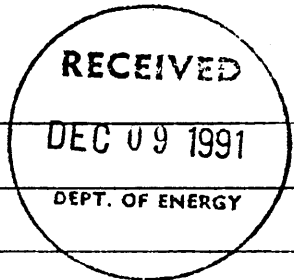
STATE OF WEST VIRGINIA
 DEPARTMENT OF ENERGY, DIVISION OF OIL AND GAS
 WELL WORK PERMIT APPLICATION

311
 Expire 12/09/93

- 1) Well Operator: DRILLING APPALACHIAN CORPORATION
- 2) Operator's Well Number: Jeffers #1 3) Elevation: 897'
- 4) Well type: (a) Oil / or Gas /

 (b) If Gas: Production / Underground Storage /

 Deep / Shallow /
- 5) Proposed Target Formation(s): GORDON 419
- 6) Proposed Total Depth: 2800± feet
- 7) Approximate fresh water strata depths: _____
- 8) Approximate salt water depths: _____
- 9) Approximate coal seam depths: _____
- 10) Does land contain coal seams tributary to active mine? Yes / No /
- 11) Proposed Well Work: Drill, perforate, stimulate new formation
- 12)



CASING AND TUBING PROGRAM

TYPE	SPECIFICATIONS			FOOTAGE INTERVALS		CEMENT
	Size	Grade	Weight per ft.	For drilling	Left in well	Fill-up (cu. ft.)
Conductor	8-5/8"	J-55	20#	120'	120'	CTS
Fresh Water						
Coal						
Intermediate	5-1/2"	J-55	15.5#	1850'	1850'	38CSR18-11.2.2 38CSR18-11.3
Production	3-1/2"	J-55	9.4#	2750'	2750'	38CSR18-11.1
Tubing						
Liners						

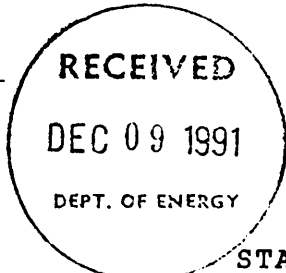
13010

D.K.
M.U.

PACKERS : Kind _____
 Sizes _____
 Depths set _____

For Division of Oil and Gas Use Only

768⁰ 770⁰
 Fee(s) paid: Well Work Permit Reclamation Fund WPCP
 Plat WW-9 WW-2B Bond _____ Agent
 (Type)



1) Date: December 6, 1991
2) Operator's well number
Jeffers #1
3) API Well No: 47 - 095 - 1489
State - County - Permit

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

NOTICE AND APPLICATION FOR A WELL WORK PERMIT

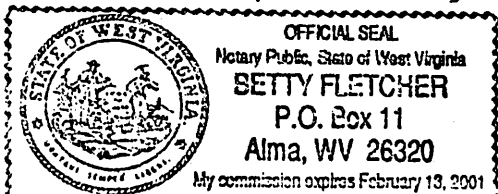
4) Surface Owner(s) to be served:
(a) Name James E. Jeffers
Address Box 1
Shirley WV 26434
(b) Name _____
Address _____
(c) Name _____
Address _____
6) Inspector Mike Underwood
Address Rt 2, Box 135
Salem, WV 26426
Telephone (304)-782-1043

5) (a) Coal Operator:
Name _____
Address _____
(b) Coal Owner(s) with Declaration
Name _____
Address _____
Name _____
Address _____
(c) Coal Lessee with Declaration
Name _____
Address _____

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
X 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 DRILLING APPALACHIAN CORPORATION
By: Ronald R. Johnson
Its: President
Address PO Box 99
Alma, WV 26320-0099
Telephone 304-758-4638

Subscribed and sworn before me this 6th day of December, 1991

Betty Fletcher Notary Public

My commission expires February 13, 2001