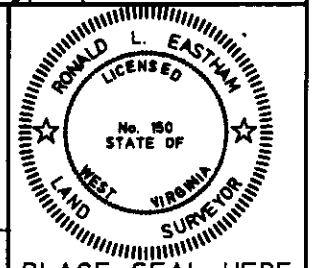


FILE NO. _____
 DRAWING NO. _____
 SCALE 1" = 2000'
 MINIMUM DEGREE OF ACCURACY 1: 116,608
 PROVEN SOURCE OF ELEVATION U.S.G.S. Mon. '32 8K5'
 Elev. = 1091.709

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 THE LAW AND THE REGULATIONS ISSUED AND PRESCRIBED BY THE DEPARTMENT OF ENERGY.
 (SIGNED) Ronald L. Eastman
 R.P.E. _____ L.L.S. 150



STATE OF WEST VIRGINIA
DEPARTMENT OF ENERGY
OIL AND GAS DIVISION

DATE June 21, 1994
 OPERATOR'S WELL NO. Bedford Land Co. No. 26
 API WELL NO. 5N.146831

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

LOCATION: ELEVATION 2450.70 WATER SHED Long Branch of Fifteemille Fork of Cabin Creek of the Kanawha River
 DISTRICT Cabin Creek COUNTY Kanawha
 QUADRANGLE Dorothy Gales N4

SURFACE OWNER Carbon Fuel Company ACREAGE 8300
 OIL & GAS ROYALTY OWNER Carbon Fuel Company LEASE ACREAGE 8406
 LEASE NO. 9965

PROPOSED WORK: DRILL ___ CONVERT X DRILL DEEPER ___ REDRILL ___ FRACTURE OR STIMULATE X 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 6,010'
 WELL OPERATOR Ashland Exploration, Inc. DESIGNATED AGENT A. Ray Chandler
 ADDRESS P.O. Box 391 4619 Ashland, Ky. 41114 ADDRESS Rt. 6 Box 178 6-6 262 Charleston, WV 25311

6-6 262 1994

FORM WW-6

COUNTY NAME PERMIT

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

Well Operator's Report of Well Work

Farm Name: CARBON FUEL COMPANY Operator Well No.: 26-S-146831

Location: Elevation: 2,450.70 Quadrangle: DOROTHY

District: CABIN CREEK County: KANAWHA
Latitude: 8800 Feet South of 38 Deg. 0 Min. 0 Sec.
Longitude: 10200 Feet West of 81 Deg. 22 Min. 30 Sec.

Company: ASHLAND EXPLORATION, INC.
P.O. BOX 391, AT-9
ASHLAND, KY 41114-0391

Agent: A. Ray Chandler

Inspector: CARLOS HIVELY
Permit Issued: 10-30-94
Well Work Commenced: 11-15-94
Well Work Completed: 01-31-95
Verbal Plugging
Permission granted on: _____
Rotary Cable _____ Rig
Total Depth (feet) 6113
Fresh water depths (ft) Damp @ 230'

Salt water depths (ft) None Noted

Is coal being mined in area (Y/N)? N
Coal Depths (ft): Open Mine @ 594, 780-786
& 801-812

Casing & Tubing	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
Size			
16"	48'	48'	11.8
11 3/4"	876'	876'	608
8 5/8"	2487'	2487'	746
4 1/2"	6108'	6108'	
1.9" @ 5946' KB			

	Dev. Shale	4467-5945
	Gordon	4243-4254
	L. & M. Weir	3619-3725
OPEN FLOW DATA	Producing formation <u>Big Lime</u>	Pay zone depth (ft) <u>3283-3288</u>
	Gas: Initial open flow <u>-0-</u> MCF/d	Oil: Initial open flow <u>--</u> Bbl/d
	Final open flow <u>2361</u> MCF/d	Final open flow <u>--</u> Bbl/d
	Time of open flow between initial and final tests <u>3</u> Hours	
	Static Rock Pressure <u>650</u> psig	(surface pressure) after <u>72</u> Hours
	Second producing formation <u>None</u>	Pay zone depth (ft) <u>--</u>
	Gas: Initial open flow <u>--</u> MCF/d	Oil: Initial open flow <u>--</u> Bbl/d
	Final open flow <u>--</u> MCF/d	Final open flow <u>--</u> Bbl/d
	Time of open flow between initial and final tests <u>--</u> Hours	
	Static Rock Pressure <u>--</u> psig	(surface pressure) after <u>--</u> 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: Ashland Exploration, Inc.
By: James L. Stephens James L. Stephens, Eng. Tech.
Date: 02-15-95

RECEIVED
 FORN W. DIVISION OF
 Environmental Protection

039-4457

Issued 10/03/94

SEP 16 1994

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

Expires 10/03/96

19776

- Permitting
 Division of Oil & Gas
- Operator: Ashland Exploration, Inc ⁴³ 2750 (2) 305
Bedford Land Company
- Operator's Well Number: 26, Serial #146831 3) Elevation: 2450.7
- Well type: (a) Oil or Gas
 (b) If Gas: Production / Underground Storage
 Deep Shallow
- Proposed Target Formation(s): Devonian Shale ⁴⁴
- Proposed Total Depth: 6010 feet
- Approximate fresh water strata depths: 160'
- Approximate salt water depths: 1933'
 Coalburg-115'Depth-Augured, Dorothy-254'Depth-Mined Out,
- Approximate coal seam depths: No. 2 Gas-780'Depth-Mined Out, Powellton - 801' Depth-Mined Out, Eagle-994'Depth-Solid
- Does land contain coal seams tributary to active mine? Yes No
- Proposed Well Work: Drill and Stimulate New Well

CASING AND TUBING PROGRAM

TYPE	SPECIFICATIONS			FOOTAGE INTERVALS		CEMENT
	Size	Grade	Weight per ft.	For drilling	Left in well	Fill-up (cu.ft.)
Conductor	16	LS	42	30	30	CTS
Fresh Water						3005/15-11-3 3005/15-11-2
Coal	11 3/4	H-40	42	861	861	CTS
Intermediate	8 5/8	J-55	24	2413	2413	CTS
Production	4 1/2	J-55	10.5	6010	6010	AS REQUIRED
Tubing	2 3/8	J-55	4.7	-	5900	SIPHON
Liners						3005/15-11-1

PACKERS: Kind _____
 Sizes _____
 Depths set _____

106040/30

For Division of Oil and Gas Use Only

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

3

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WV Division of
Environmental Protection

SEP 16 1994

Permitting
Office of Oil & Gas

Page 1 of 2
Form WW2-A
(09/87)
File Copy

- 1) Date: September 14, 1994
- 2) Operator's well number
Bedford Land Company #26, Serial #146831
- 3) API Well No: 47 - 039 - 4954
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 Carbon Fuel Company
Address One Carbon Square
Chesapeake, WV 25315
 - (b) Name _____
Address _____
 - (c) Name _____
Address _____
- 5) (a) Coal Operator:
 - Name Princess Beverly Coal Company
Address 8003 Maryland Ave.
Marmet, WV 25315
 - (b) Coal Owner(s) with Declaration
Name Same as No. 4(a)
Address _____
 - Name _____
Address _____
 - (c) Coal Lessee with Declaration
Name Same as No. 5(a)
Address _____
- 6) Inspector Carlos W. Hively
Address 223 Pinch Ridge Road
Elkview, WV 25071
Telephone (304)-965-6069

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 2 on the above named parties, by:

- ____ Personal Service (Affidavit attached)
- X 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 Ashland Exploration, Inc.
By: Don K. Cunningham *Don K. Cunningham*
Its: Senior Engineer
Address P.O. Box 391
Ashland, KY 41114
Telephone 606-329-3870

Subscribed and sworn before me this 14th day of September, 1994

Vicki W. North Notary Public
My commission expires November 23, 1994

<u>Formation or Rock Type</u>	<u>Top</u>	<u>Base</u>
Sand and Shale (base Lee Sand)	0	2341
Pennington	2341	3117
M. Maxton	2791	2803
L. Maxton	2936	2948
Little Lime	3117	3211
Big Lime	3211	3511
Borden	3511	3989
Weir	3615	3769
Sunbury Shale	3989	4028
Berea	4028	4066
Devonian Shale	4066	T.D.
Gordon	4243	4257

Drillers TD 6113

Loggers TD 6119

1 1/4" Well was grouted immediately following primary job and finally topped off on the 8 5/8" casing job.

8 5/8 cmt'd to surface on primary job.

Perf L. Dev. Shale using 3 1/8" JRC jets in SF HCG 1 spf @ 5945, 5918, 5907, 5895, 5889, 5846, 5822, 5812, 5801, 5784, 5722, 5685, 5651, 5627, 5589, 5543, 5512, 5504, 5490 & 5488, 20H total. Dump 850 gal 7 1/2% HCl-Fe acid. N₂ frac L. Dev. Shale using 850,000 scf N₂ @ 80,800 scf/m. BD 3529, ATP 3567, MTP 3606, ISIP 2162, TF 9 Bbl.

Perf U. Dev. Shale using SF HCG .37 jets 1 spf @ 4861, 4841, 4833, 4813, 4763, 4751, 4731, 4696, 4671, 4657, 4633, 4601, 4599, 4542, 4521, 4508, 4501, 4495, 4481, 4467, 20H total. Set Howco RBP @ 4930' KB. Howco N₂ frac U. Dev. Shale using 850,000 scf N₂ @ 78,400 scf/m. BD 3754, ATP 3020, MTP 3754, ISIP 1765.

Perf Gordon w/3 3/8" JRC jets 0.41 hole size in HCG as follows: 23H/4243-4254. Set Howco 4 1/2" RBP @ 4320'. 75 Quality foam frac Gordon using 500 gal 15.5% HCl-Fe acid, 51,300# 20/40 sand & 190,000 scf N₂ @ 8458 scf/m. BD 1227, ATP 1322 @ 20 BPM foam rate, MTP 1484 & ISIP 1074.

Perf L. & M. Weir using 3 3/8" HCG 0.41 JRC jets as follows: 37H/3707-3725, 17H/3636-3644 & 19H/3619-3628, 73H total. Set Howco RBP @ 3780'. 75Q foam frac using 500 gal 16.3% HCl-Fe acid, 101,300# 20/40 sand & 230,000 scf N₂ @ 7239 scf/m. BD 1208, ATP 1190 @ 20 BPM foam rate, MTP 1324 & ISIP 1012. RU HES & perf Big Lime using 3 3/8" HCG 0.41 JRC jets as follows: 21H/3288-3288. Set Howco RBP @ 3340'. 65 Quality foam acidize Big Lime using 2000 gal 30.5% HCl-Fe acid, 500 gal 14.7% HCl-Fe acid & 99,000 scf N₂ @ 5522 scf/m. BD 2533, ATP 1755 @ 12.3 BPM foam rate, MTP 2780 & ISIP 1435.