

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

FILE NO. _____
 DRAWING NO. _____
 SCALE 1" = 2,000'
 MINIMUM DEGREE OF ACCURACY 1:116,405
 PROVEN SOURCE OF ELEVATION U.S.G.S. B.M. "689"
Elev. = 689.559

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) Ronald L. Smith
 R.P.E. _____ L.L.S. 150



PLACE SEAL HERE

STATE OF WEST VIRGINIA
 DEPARTMENT OF ENERGY
 OIL AND GAS DIVISION



DATE July 23, 19 91
 OPERATOR'S WELL NO. Island Creek Coal Co. P-37
 API WELL NO. S.N. 135621

47 - 045 - 1175
 STATE COUNTY PERMIT

WELL TYPE: OIL ___ GAS X LIQUID INJECTION ___ WASTE DISPOSAL ___
 (IF "GAS,") PRODUCTION X STORAGE ___ DEEP ___ SHALLOW X
 LOCATION: ELEVATION 1,126.71 WATERSHED Pine Gap Branch of Whitman Creek
 DISTRICT Island Creek COUNTY Logan
 QUADRANGLE Holden

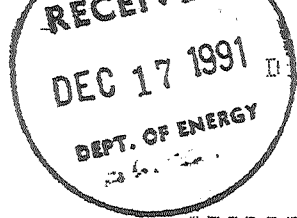
SURFACE OWNER Georgia - Pacific Corporation ACREAGE 7,237.61 (Tr.47)
 OIL & GAS ROYALTY OWNER Island Creek Coal Company LEASE ACREAGE 35,053.47
 LEASE NO. 80662

PROPOSED WORK: DRILL X CONVERT ___ 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 4,990' KB
 WELL OPERATOR Ashland Exploration, Inc. DESIGNATED AGENT Forrest Burkett
 ADDRESS P.O. Box 391 ADDRESS P.O. Box 379
Ashland, Ky. 41118 Brenton, W. Va. 24818

COUNTY NAME
 PERMIT

DEEP WELL 6-6 unnamed (6)



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

API # 47-45-01175

Reviewed TM6
Recorded _____

Well Operator's Report of Well Work

Firm name: GEORGIA-PACIFIC CORP Operator Well No.: ICCD D 37

LOCATION: Elevation: 1126.71 Quadrange: HOLDEN

District: ISLAND CREEK County: LOGAN
Latitude: 7400 Feet South of 37 Des. 47Min. 30 Sec.
Longitude 4450 Feet West of 82 Des. 2 Min. 30 Sec.

Company: ASHLAND EXPLORATION, INC.
P.O. BOX 391, A1-6
ASHLAND, KY 41114-0391

Agent: B E. WIDENER

Inspector: OFIE HELMICK
Permit Issued: 09/06/91
Well work Commenced: 10/04/91
Well work Completed: 11/27/91
Verbal Plugging _____
Permission granted on: _____
Rotary Cable _____ Rig _____
Total Depth (feet) 4980
Fresh water depths (ft) 115'
262' (Map WV-12)
Salt water depths (ft) 612' (Map WV-12)

Casings	Used in	Left	Cement
Tubing	Drillings	in Well	Fill Up
Size			Cu. Ft.
16"	58'	58'	16.52
11 3/4"	550'	550'	317
8 5/8"	2250'	2250'	682
5 1/2"	4973'	4973'	785
Is coal being mined in area (Y/N)? <u>N</u>			
Coal Depths (ft): <u>205-208, 244-247,</u>			
Open mine <u>445-450</u>			
1.9" w/ ADL-1 @ 2629 & SN @ 4791			
1.9" @ 2595' KB			

OPEN FLOW DATA

Producing formation Devonian Shale Pay zone depth (ft) 3286-4875
 Gas: Initial open flow -0/87 MCF/d Oil: Initial open flow -0- Bbl/d
 Final open flow 901/857 MCF/d Final open flow -0- Bbl/d
 Time of open flow between initial and final tests 3 Hours
 Static rock Pressure 750# psig (surface pressure) after 72 Hours

Second producing formation Big Lime Pay zone depth (ft) 2522-2601
 Gas: Initial open flow 84 MCF/d Oil: Initial open flow -0- Bbl/d
 Final open flow 956 MCF/d Final open flow -0- Bbl/d
 Time of open flow between initial and final tests 3 Hours
 Static rock Pressure 680 psig (surface pressure) after 72 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: 12-16-91

DEC 20 1991

<u>Formation on Rock Type</u>	<u>TOP</u>	<u>BASE</u>
Sand and Shale (Base Lee fm.)	0	1800
Pennington formation	1800	2303
U. Maxton 2095-2173		
L. Maxton 2260-2280		
Little Lime	2303	2356
Big Lime	2356	2626
Borden formation	2626	3122
Sunbury Shale	3122	3152
Devonian Shale	3152	4971
Onondaga Ls.	4971	TD

DTD 4980' KB
LTD 4978' KB

11 3/4" csg was cmt'd to surface on the primary job.
8 5/8" csg was cmt'd to surface on the primary job.

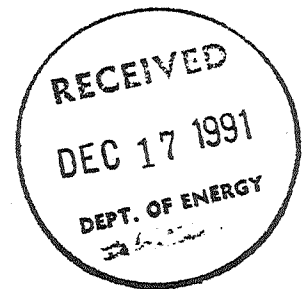
Well Treatment

Perf Rhinestreet 20H/4682-4875. N₂ frac using 500 gal 7 1/2% inh. fe acid, 806,000 scf N₂ @ 98,137 scf/min. BD @ 3227#, ATP 3898#, MTP 3997#, ISIP 2796#.

Perf Huron 20H/4142-4436. N₂ frac using 500 gal 7 1/2% inh fe acid, 806,000 scf N₂ @ 102,087 scf/min. BD @ 4272#, ATP 3399#, MTP 4646, ISIP 1848.

Perf U. Dev. Shale 20H/3286-3679. N₂ frac using 500 gal 7 1/2% fe inh acid, 806,000 scf N₂ @ 102,117 scf/min. BD @ 3570#, ATP 3263#, MTP 3570#, ISIP 1588#.

Perf Big Lime 13H/2522-2601. BD and Ballout and 75 quality ramp frac using 1000 gal 15% inh. fe acid, 41,600# 20/40 sand, 310,000 scf N₂ @ 12,400 scf/min. BD @ 2010, ATP 2000# @ 30 bpm foam rate, MTP 2700#, ISIP 1300# and TF 235 bbls.



6780

045-1175
 Issued 9/6/91
 Expires 9/6/93
 Page 1 of 1

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

- 1) Well Operator: Ashland Exploration, Inc. 2750 (5) 401
- 2) Operator's Well Number: Island Creek Coal Co. D-37 3) Elevation: 1126.71
 S.N. 135621
- 4) Well type: (a) Oil / or Gas /
 (b) If Gas: Production / Underground Storage /
 Deep / Shallow /
- 5) Proposed Target Formation(s): Devonian Shale
- 6) Proposed Total Depth: 4,990' KB feet
- 7) Approximate fresh water strata depths: 262' KB (Map WV-12)
- 8) Approximate salt water depths: 612' KB (Map WV-12)
- 9) Approximate coal seam depths: Lower Cedar Grove - Mined Out Elev. 701'
- 10) Does land contain coal seams tributary to active mine? Yes / No /
- 11) Proposed Well Work:
- 12)

CASING AND TUBING PROGRAM

TYPE	SPECIFICATIONS			FOOTAGE INTERVALS		CEMENT
	Size	Grade	Weight per ft.	For drilling	Left in well	
Conductor	16"	LS	-----	30	30	CTS
Fresh Water						
Coal	11 3/4"	H40	42.0	495	495	CTS
Intermediate	8 5/8"	J55	24.0	2275	2275	CTS
Production	5 1/2"	J55	15.5	4990	4990	As Needed
Tubing	1.9"	J55	2.76	-----	4940	Siphon
Liners						

RECEIVED
 Division of Energy

AUG 21 1991

PACKERS : Kind _____
 Sizes _____
 Depths set _____

506304
 22

For Division of Oil and Gas Use Only

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

12819

- 1) Date: August 20, 1991
- 2) Operator's well number
Island Creek Coal Co. #D-37, Serial #134621
- 3) API Well No: 47 - 045 - 1175
State - County - Permit

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

ANG 21 91

NOTICE AND APPLICATION FOR A WELL WORK PERMIT

- | | |
|--|---|
| <p>4) Surface Owner(s) to be served:</p> <p>(a) Name <u>Georgia-Pacific Corp.</u>
Address <u>Jerry Crouse</u>
<u>Wyoming, WV 24898</u></p> <p>(b) Name _____
Address _____</p> <p>(c) Name _____
Address _____</p> | <p>5) (a) Coal Operator:</p> <p>Name <u>N/A</u>
Address _____</p> <p>(b) Coal Owner(s) with Declaration</p> <p>Name <u>Island Creek Coal Company</u>
Address <u>P.O. Box 840</u>
<u>Holden, WV 25625</u></p> <p>Name _____
Address _____</p> <p>(c) Coal Lessee with Declaration</p> <p>Name <u>N/A</u>
Address _____</p> |
| <p>6) Inspector <u>Ofie Helmick</u>
Address <u>525 Tiller Street</u>
<u>Logan, WV 25601</u>
Telephone <u>(304)-792-7075</u></p> | |

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 2 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 Ashland Exploration, Inc.
 By: W. Mark Parks *W. Mark Parks*
 Its: Operations Manager
 Address P.O. Box 391
Ashland, KY 41114
 Telephone 606-329-5989

Subscribed and sworn before me this 20th day of August, 1991

Thick W. South
 _____ Notary Public
 My commission expires November 23, 1994