



FILE NO. 64-32  
 DRAWING NO. \_\_\_\_\_  
 SCALE 1" = 1000'  
 MINIMUM DEGREE OF ACCURACY 1 in 17,047.15  
 PROVEN SOURCE OF ELEVATION Top of Knob located northeast of proposed location # 234  
Elevation = 1941

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) Rick S. Jaffe  
 R.P.E. \_\_\_\_\_ L.I.S.W.V. Permit # 009  
K.Y. L.S. # 2823

PLACE SEAL HERE

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



DATE November 22, 1988  
 OPERATOR'S WELL NO. 234, Serial # 117331  
 API WELL NO. \_\_\_\_\_  
47 - 109 - 1070  
 STATE COUNTY PERMIT

STATE OF WEST VIRGINIA  
 DEPARTMENT OF MINES  
 OIL AND GAS DIVISION

WELL TYPE: OIL \_\_\_ GAS X LIQUID INJECTION \_\_\_ WASTE DISPOSAL \_\_\_  
 (IF "GAS,") PRODUCTION \_\_\_ STORAGE \_\_\_ DEEP \_\_\_ SHALLOW X  
 LOCATION: ELEVATION 1675.7' WATER SHED Panther Branch of the Guyandotte River  
 DISTRICT Center 3 COUNTY Wyoming  
 QUADRANGLE Pineville 549 106 6 + 15' EC  
 SURFACE OWNER Georgia Pacific Corporation ACREAGE 165.5  
 OIL & GAS ROYALTY OWNER Georgia Pacific Corporation LEASE ACREAGE 67,244.09  
 LEASE NO. 4157  
 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 Barco ESTIMATED DEPTH 3591' KB  
 WELL OPERATOR Ashland Exploration, Inc. DESIGNATED AGENT Forrest Burkett  
 ADDRESS P.O. Box 391 ADDRESS P.O. Box 379  
Ashland, KY 41114 43 Brenton, WV 24818

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

- 1) Well Operator: Ashland Exploration, Inc. 2750, 3, 548
- 2) Operator's Well Number: 234, Serial #117331 3) Elevation: 1675.7'  
W. M. Ritter Lumber Co.
- 4) Well type: (a) Oil  or Gas   
(b) If Gas: Production  / Underground Storage   
Deep  Shallow
- 5) Proposed Target Formation(s): Berea
- 6) Proposed Total Depth: 3591'KB feet
- 7) Approximate fresh water strata depths: 711'KB
- 8) Approximate salt water depths: 996'KB  
98' Sewell Seam (Mined)
- 9) Approximate coal seam depths: 696' Poca #3 Seam (Not Mined)
- 10) Does land contain coal seams tributary to active mine? Yes  / No
- 11) Proposed Well Work: Drill & Stimulate New Well
- 12)

CASING AND TUBING PROGRAM

TYPE	SPECIFICATIONS			FOOTAGE INTERVALS		CEMENT
	Size	Grade	Weight per ft.	For drilling	Left in well	
Conductor	16	H-40	48.0	30	30	CTS
Fresh Water						38CSR18-11.3 38CSR18-11.22
Coal	12 3/4	LS	-	148	148	CTS
Intermediate	8 5/8	J-55	24.0	1046	1046	CTS
Production	4 1/2	J-55	10.5	3591	3591	38CSR18-11.1 As Needed
Tubing	2 3/8	J-55	4.7	-	3541	Siphon
Liners						

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

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For Division of Oil and Gas Use Only DIVISION OF OIL & GAS DEPARTMENT OF ENERGY

Fee(s) paid:  Well Work Permit  Reclamation Fund  WPCP  
 Plat  WW-9  WW-2B  Bond 50 Blanket  Agent  
 (Type)

506465  
40

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DIVISION OF OIL & GAS 3)  
DEPARTMENT OF ENERGY

Date: November 22, 1988  
Operator's well number  
W. M. Ritter Lumber Co. #234, Serial #117331  
API Well No: 47 - 109 - 1070  
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 Georgia-Pacific Corp.  
Address 133 Peachtree  
Atlanta, GA 30303  
(b) Name \_\_\_\_\_  
Address \_\_\_\_\_  
(c) Name \_\_\_\_\_  
Address \_\_\_\_\_

6) Inspector Arthur St. Clair  
Address P.O. Box 468  
Brenton, WV 24818  
Telephone (304)-732-6226

Lessee  
5) (a) Coal ~~OPERATOR~~ (Poca #3 Seam)  
Name Consol Land Development Co.  
Address P.O. Box 1289  
Bluefield, VA 24605  
(b) Coal Owner(s) with Declaration  
Name Same as No. 4(a)  
Address \_\_\_\_\_  
Name \_\_\_\_\_  
Address \_\_\_\_\_

(c) Coal Lessee with Declaration (Sewell Seam)  
Name Island Creek Corporation  
Address P.O. Box 840  
Holden, WV 25625

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: J. T. Mellinger  
Its: Manager Eastern Region  
Address P.O. Box 391  
Ashland, KY 41114  
Telephone (606) 329-5450

Subscribed and sworn before me this 22nd day of November, 1988

Dick W. Spots Notary Public  
My commission expires November 23, 1990

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API # 47-109-01070

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

DIVISION OF OIL & GAS  
DEPARTMENT OF ENERGY Well Operator's Report of Well Work

Farm name: GEORGIA-PACIFIC CORP. Operator Well No.: 234-S-117331

LOCATION: Elevation: 1685.70' Quadrangle: PINEVILLE

District: CENTER County: WYOMING  
Latitude: 12975 Feet South of 37 Deg. 37Min. 30 Sec.  
Longitude 10325 Feet West of 81 Deg. 32 Min. 30 Sec.

Company: ASHLAND EXPLORATION, INC.  
P. O. BOX 391  
ASHLAND, KY

Agent: FORREST BURKETT

Inspector: ARTHUR ST. CLAIR  
Permit Issued: 12/09/88  
Well work Commenced: 04-21-89  
Well work Completed: 07-10-89  
Verbal Plugging  
Permission granted on:  
Rotary X Cable \_\_\_\_\_ Rig  
Total Depth (feet) 6414'  
Fresh water depths (ft) not noted  
while drilling  
Salt water depths (ft) 996' KB

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
16"	41'	41'	17
11 3/4"	462'	462'	221
8 5/8"	1063'	1063'	289
5 1/2"	6358'	6358'	1165
1.9" tbg	-----	6145' w/ADL-1 Pkr @	
1.9" tbg		3572'	

Is coal being mined in area (Y/N)? N  
Coal Depths (ft): 74' - 77'

OPEN FLOW DATA

Devonian Shale 4684-614:  
Producing formation Gordon Pay zone depth (ft) 3704-372:  
Gas: Initial open flow 119 MCF/d Oil: Initial open flow \_\_\_\_\_ Bbl/  
Final open flow 646 MCF/d Final open flow \_\_\_\_\_ Bbl/  
Time of open flow between initial and final tests 3 Hour  
Static rock Pressure 435 psig (surface pressure) after 72 Hour  
a) Berea b) Big Line a) 3571-3576 b) 2536-2540  
Second producing formation c) Ravenscliff Pay zone depth (ft) c) 1376-  
Gas: Initial open flow 119 MCF/d Oil: Initial open flow \_\_\_\_\_ Bbl/  
Final open flow 646 MCF/d Final open flow \_\_\_\_\_ Bbl/  
Time of open flow between initial and final tests 3 Hour  
Static rock Pressure 210 psig (surface pressure) after 72 Hour

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATE 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: Derek S. Hina Derek S. Hina  
Date: July 13, 1989 Engineer. Tec

JUL 21 1989

- L. Devonian Shale -- Perf 26H/6142-5688. 75 Q foam frac using 750 gal 8 1/2% HCl, 1000 gal 25% Methanol, 88,000# 20/40 sand, 807,000 scf N2 @ 31,000 scf/m. BD @ 2410#, ATP 3600# @ 50 BPM foam, MTP 4600#, ISIP 4550#, 15 min 3990#, TF 382 bbl.
- U. Devonian Shale -- Perf 26H/4684-5174. 75 Q foam frac using 750 gal 7 1/2% HCl, 1000 gal 25% Methanol, 101,000# 20/40 sand, and 900,000 scf N2 @ 29,000 scf/m. BD @ 1950#, ATP 3100# @ 50 BPM foam, MTP 3510#, ISIP 1490#, 15 min 1130#, TF 410 bbl.
- Gordon & Berea -- Perf 56H/3571-3722. 75 Q foam frac using 750 gal 15% HCl inh Fe acid, 1000 gal 25% Methanol, 68,000# 20/40 sand & 440,000 scf N2 @ 10,800 scf/m. BD @ 1060, ATP 1200# @ 25 BPM foam rate, MTP 1280#, ISIP 1050#, 15 min 950#, TF 303 bbl.
- Big Lime -- Perf 16H/2536-2540. Pump 1000 gal 14% inh Fe HCl, 1000 gal 28% inh Fe HCl & 1000 gal 14% inh Fe HCl - displace w/90 bbls treated water. BD 0#, ATP 20#, MTP 160#, ISIP 0#, Pumped @ 4 BPM.
- Ravenscliff -- Perf 37H/1376-1410. 75 Q foam frac using 500 gal 16% HCl w/Fe agent, 1000 gal 25% Methanol, 42,100# 20/40 sand, 474,000 scf N2 @ 13,500 scf/m. BD @ 1370#, ATP 2650# @ 25 BPM foam rate, MTP 3960#, ISIP 3800#, 15 min 2850#, TF 257 bbl.

<u>Formation</u>	<u>Top</u>	<u>Base</u>
Sand & Shales	0	521
Salt Sands	521	1032
Shale	1032	1092
Princeton	1092	1203
Shales	1203	1324
Ravenscliff	1324	1437
Avis LS	1437	1482
Sand & Shales	1482	1955
M. Maxton	1955	1985
Sand & Shales	1985	2167
L. Maxton	2167	2232
Shale	2232	2283
L. Lime	2283	2394
Pencil Cave	2394	2406
B. Lime	2406	2934
Shale	2934	3136
L. Weir	3136	3161
Shales	3161	3528
Coffee Shale	3528	3546
Berea	3546	3577
Devonian Shale	3577	3683
Gordon	3683	3724
Devonian Shale	3724	6388
Onondaga LS	6388	

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DIVISION OF OIL & GAS  
DEPARTMENT OF ENERGY

TD  
6414

Mer @ TD?

8044

Est  
404 3724  
813 4900  
822 5550  
825 5650  
830 5850

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