

R.P.

11,550'

40

LATITUDE 37° 37' 30"

Jamil 3/3/89

Nail in root of 18" Red oak

R.P. Nail in root of 18" Lynn

W.M. RITTER LUMBER CO.

LONGITUDE 81° 54' 18"

14,125'

LOC 240

LOC 240

N2°10'03"E
107.76'

S57°30'47"E
94.14'

N64°35'24"E
1238.99'

TR 10109-2F

ST RT 97
NORTH SPRING BR.

2765.82'

3499.47'

N1°07'26"E

N15°35'24"E

Well 221

Set stone

B.M. EL. 1142

TR 10025-F

Well 213

675

LOGAN-WYOMING COAL LAND CO

GEORGIA PACIFIC CORP
BUCK & KIMES TRACT

5.56
2.20

LITTLE HUFF CREEK

ROSE BR.

TR 10047-F

2.685
2.20W

GEORGIA-PACIFIC COORD.
AT LOCATION 240
N - 79,844.28'
W - 69,696.87'

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

FILE NO. _____
DRAWING NO. _____
SCALE 1" = 1000'
MINIMUM DEGREE OF ACCURACY 1:5500'
PROVEN SOURCE OF ELEVATION USGS BM W-176
In rock cut 2150'± south of location El. 1142'

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. Talley Jr.
R.P.E. _____ I.L.S. 92

PLACE SEAL HERE

STATE OF WEST VIRGINIA
DEPARTMENT OF ENERGY
OIL AND GAS DIVISION



DATE FEB 13, 1989
OPERATOR'S WELL NO. RITTER 240
API WELL NO. Serial # 117451

47 109 1082
STATE COUNTY PERMIT

WELL TYPE: OIL ___ GAS X LIQUID INJECTION ___ WASTE DISPOSAL ___
(IF "GAS,") PRODUCTION X STORAGE ___ DEEP ___ SHALLOW X
LOCATION: ELEVATION 1864.24 WATERSHED NORTH SPRING BR OF LITTLE HUFF CREEK
DISTRICT HUFF CREEK 5 COUNTY WYOMING
QUADRANGLE GILBERT 363 049 6 +15' EC
SURFACE OWNER GEORGIA-PACIFIC CORP. ACREAGE 40,000+
OIL & GAS ROYALTY OWNER GEORGIA PACIFIC CORP. LEASE ACREAGE 67,244.09
LEASE NO. 4157

COUNTY NAME
PERMIT

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 6369 KB
WELL OPERATOR ASHLAND EXPLORATION INC DESIGNATED AGENT FORREST BURKETT
ADDRESS P.O. BOX 391, ASHLAND KY, 41114 ADDRESS P.O. BOX 379, BRENTON WV, 24818

MAR 24 1989

DEEP WELL 6-6 Gilbert (271)

43

15

109-1082
Issued 3/20/89 Expires 3/20/91

Page 1 of 1

FORM WW-2B

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

2750, 5, 363

- 1) Well Operator: Ashland Exploration, Inc.
W. M. Ritter Lumber Co.
- 2) Operator's Well Number: 240, Serial #117651 3) Elevation: 1864.24
- 4) Well type: (a) Oil / or Gas X /
(b) If Gas: Production X / Underground Storage /
Deep / Shallow X /
- 5) Proposed Target Formation(s): Devonian Shale
- 6) Proposed Total Depth: 6369'KB feet
- 7) Approximate fresh water strata depths: 849'KB
- 8) Approximate salt water depths: 2044'KB
- 9) Approximate coal seam depths: Coal Seams Not Operated
- 10) Does land contain coal seams tributary to active mine? Yes / No X /
- 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 | Fill-up (cu. ft.) |
| Conductor | 16" | H40 | 65.0 | 30 | 30 | CTS |
| Fresh Water | | | | | | 38CSR18-11.3 38CSR18-11.2.2 |
| Coal | | | | | | |
| Intermediate | 8 5/8" | J55 | 24.0 | 2094 | 2094 | CTS |
| Production | 5 1/2" | J55 | 15.5 | 6369 | 6369 | 38CSR18-11.1 As Needed |
| Tubing | 1.9" | CW55 | - | - | 6319 | Siphon |
| Liners | | | | | | |

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PACKERS : Kind _____
Sizes _____
Depths set _____

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

506512

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

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DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

- 1) Date: February 24, 1989
- 2) Operator's well number
W. M. Ritter Lumber Co. #240, Serial #117651
- 3) API Well No: 47 - 109 - 1082
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 _____
- 5) (a) Coal Operator:
 - Name None
Address _____
 - (b) Coal Owner(s) with Declaration
Name Same as No. 4(a)
Address _____
 - Name _____
Address _____
 - (c) Coal Lessee with Declaration
Name Virginia Crews Coal Company
Address P.O. Box 727
Iaeger, WV 24844-0727
- 6) Inspector Tim Bennett
Address 525 Tiller St.
Logan, WV 25601
Telephone (304)-792-7075

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.
 PSF 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 24th day of February, 1989

Vicki W. Nantz Notary Public
My commission expires November 23, 1990

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

Well Operator's Report of Well Work

Farm name: GEORGIA-PACIFIC CORP. Operator Well No.: 240-S-117651

LOCATION: Elevation: 1864.24 Quadrangle: GILBERT

District: HUFF CREEK County: WYOMING
Latitude: 14125 Feet South of 37 Deg. 37Min. 30 Sec.
Longitude 11550 Feet West of 81 Deg. 45 Min. 0 Sec.

Company: ASHLAND EXPLORATION, INC.
P. O. BOX 391
ASHLAND, KY 41114-0000

Agent: FORREST BURKETT

Inspector: RODNEY G. DILLON
Permit Issued: 03/20/89
Well work Commenced: 6/5/89
Well work Completed: 8/16/89
Verbal Plugging _____
Permission granted on: _____
Rotary x Cable _____ Rig _____
Total Depth (feet) 6340
Fresh water depths (ft) Hole damp @
648'. Approx. 849' KB
Salt water depths (ft) Approx. 2044'

| Casing & Tubing Size | Used in Drilling | Left in Well | Cement Fill Up Cu. Ft. |
|----------------------|------------------|--------------|------------------------|
| 16" | 30' | 30' | 17 1/2 |
| 8 5/8" | 2098' | 2098' | 785 |
| 5 1/2" | 6327' | 6327' | 720 |

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Is coal being mined in area (Y/N)? N
Coal Depths (ft): Not noted during drilling

DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

OPEN FLOW DATA

Producing formation Devonian Shale Pay zone depth (ft) 5226-6228
Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d
Final open flow 4581 321 MCF/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests _____ Hours
Static rock Pressure 475 psig (surface pressure) after 14 Hours
*Shale is isolated w/Baker RBP set @ 4230'
Second producing formation Berea Pay zone depth (ft) 4147-4165
Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d
Final open flow 4260 MCF/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests _____ Hours
Static rock Pressure 700 psig (surface pressure) after 16 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
Date: 8/17/89 Engineering Technician

AUG 25 1989

| <u>FORMATION</u> | <u>TOP</u> | <u>BASE</u> |
|------------------------|------------|-------------|
| Sand & Shale | 0 | 1733 |
| Lee Sand | 1733 | 2071 |
| Shale | 2071 | 2360 |
| Ravenscliff | 2360 | 2423 |
| Avis LS | 2423 | 2468 |
| Shale | 2468 | 2502 |
| Stray Maxton | 2502 | 2701 |
| Upper Maxton | 2701 | 2791 |
| Shale | 2791 | 2819 |
| Middle Maxton | 2819 | 2858 |
| Sand & Shale | 2858 | 3023 |
| Lower Maxton | 3023 | 3041 |
| Shale | 3041 | 3088 |
| Little Lime | 3088 | 3180 |
| Pencil Cave | 3180 | 3203 |
| Big Lime | 3203 | 3562 |
| Shale | 3562 | 3675 |
| Weir | 3675 | 3790 |
| Shale | 3790 | 4113 |
| Coffee Shale | 4113 | 4136 |
| Berea | 4136 | 4180 |
| Devonian Shale | 4180 | 6275 |
| Marcellus Rhinestreet? | 6275 | 6323 |
| Onondaga LS | 6323 | TD |

DTD 6341
LTD 6340

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DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

WELL TREATMENT

Perf L. Dev. Shale 25H/5980-6228. 75 Q foam frac using 1000 gal inh Fe acid, 1000 gal 25% treated Methanol, 20#/1000 gal gel system, 84,800# 20/40 sand & 1,000,003 SCF N₂ @ 33,500 SCF/min. BD @ 2350#, ATP 2480# @ 50 bpm foam rate, MTP 2510#, ISIP 1500#, 15 min 1330#, TSLF 302 bbls. & TF 416 bbls.

Perf U. Dev. Shale 25H/5226-5648. 75 Q foam frac using 1000 gal 7 1/2% HCl, 1000 gal 25% treated Methanol, 97,500# 20/40 sand & 870,000 SCF N₂ @ 28,000 SCF/min. BD @ 2090#, ATP 2320# @ 50 bpm foam rate, MTP 2370#, ISIP 1250#, 15 min 1060# & TF 445 bbls.

Perf Berea 36H/4147-4165. 75 Q foam frac using 500 gal 17% inh Fe acid, 49,600# 20/40 sand & 365,000 SCF N₂ @ 10,200 SCF/min. BD @ 1380#, ATP 1200# @ 25 bpm foam rate, MTP 1380#, ISIP 900#, 15 min 780# & TF 233 bbls.

JD 4136
LH 5286
J 5936
A 6036

1361

HNLE E

AUG 25 1989