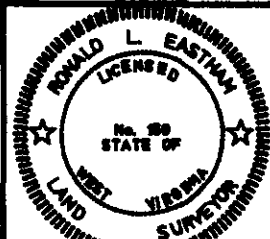


(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS

FILE NO. _____
 DRAWING NO. _____
 SCALE 1" = 2000'
 MINIMUM DEGREE OF ACCURACY 1:32032
 PROVEN SOURCE OF ELEVATION U.S.G.S. 'UE-1044.7'
 Elev. 1044.651

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



PLACE SEAL HERE

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



DATE February 10, 1993
 OPERATOR'S WELL NO. Rowland Land Co. 91
 API WELL NO. 8N 143351

47-081-0949

WELL TYPE: OIL ___ GAS X LIQUID INJECTION ___ WASTE DISPOSAL ___
 (IF "GAS,") PRODUCTION ___ STORAGE X DEEP ___ SHALLOW X
 LOCATION: ELEVATION 102936 WATER SHED Clear Fork of Big Coal River
 DISTRICT Clear Fork 1 COUNTY Raleigh
 QUADRANGLE Dorothy Scales NW
 SURFACE OWNER Rowland Land Company ACREAGE 6300.37
 OIL & GAS ROYALTY OWNER Rowland Land Company LEASE ACREAGE 47340.87

LEASE NO. 80894
 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 INFORMATION Devonian Shale ESTIMATED DEPTH 4683' KB
 WELL OPERATOR Ashland Exploration, Inc. DESIGNATED AGENT Bobby E. Widener
 ADDRESS P.O. Box 391 4619 Ashland, Ky. 41114 ADDRESS P.O. Box 379 Brenton, W.V. 24818

FORM W-5

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: ROWLAND MANAGEMENT CORP. Operator Well No.: 91-S-143351

Location: Elevation: Quadrangle:

District: CLEAR FORK County: RALEIGH
Latitude: Feet South of Deg. Min. Sec.
Longitude: Feet West of Deg. Min. Sec.

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

Agent: B. E. Widener

Inspector: RODNEY DILLON
Permit Issued: 05-10-93
Well Work Commenced: 07-31-93
Well Work Completed: 09-10-93
Verbal Plugging
Permission granted on:
Rotary X Cable _____ Rig
Total Depth (feet) 4693
Fresh water depths (ft) 7" stream @ 99'
1" stream @ 465'

Casing & Tubing	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
Size 20"	36'	36'	Driven
16"	54'	54'	118
11 3/4"	424'	424'	
8 5/8"	1015'	1015'	
5 1/2"	4672'	2672'	
1.9" @ 4484' w/R-4 pkr. @ 2353'			
1.9" @ 2287' KB			

Salt water depths (ft) None noted
Is coal being mined in area (Y/N)? N
Coal Depths (ft): None

OPEN FLOW DATA

Producing formation Devonian Shale Pay zone depth (ft) 3395-4566
Gordon 2826-2834
Gas: Initial open flow 0 MCF/d Oil: Initial open flow --- Bbl/d
Final open flow 1371 MCF/d Final open flow --- Bbl/d
Time of open flow between initial and final tests 3 Hours
Static Rock Pressure 670# psig (surface pressure) after 72 Hours

Second producing formation Weir Pay zone depth (ft) 2227-2272
Gas: Initial open flow 0 MCF/d Oil: Initial open flow --- Bbl/d
Final open flow 174 MCF/d Final open flow --- Bbl/d
Time of open flow between initial and final tests 3 Hours
Static Rock Pressure 450# psig (surface pressure) after 72 Hours

1545
mcf
POF
for well

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.

Reviewed TMG
Recorded _____

For: Ashland Exploration, Inc.
By: James L. Stephens James L. Stephens, Eng. Tech.
Date: 9-20-93



30
2 3 93
Permitting
Office of Oil & Gas

- 1) Date: March 18, 1993
- 2) Operator's well number
Rowland Land Company #91, Serial #143351
- 3) API Well No: 47 - 081 - 0949
State - County - Permit

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

- | | |
|--|---|
| <p>4) Surface Owner(s) to be served:</p> <p>(a) Name <u>Rowland Management Corp.</u>
Address <u>1033 Quarrier St., Room 301</u>
<u>Charleston, WV 25301</u></p> <p>(b) Name _____
Address _____</p> <p>(c) Name _____
Address _____</p> <p>6) Inspector <u>Rodney Dillon</u>
Address <u>P.O. Box 131</u>
<u>Bradley, WV 25818</u>
Telephone (304)- <u>877-2912</u></p> | <p>5) (a) Coal Operator:
Name <u>N/A</u>
Address _____</p> <p>(b) Coal Owner(s) with Declaration
Name <u>Same as No. 4(a)</u>
Address _____</p> <p>Name _____
Address _____</p> <p>(c) Coal Lessee with Declaration
Name <u>Consolidation Coal Company</u>
Address <u>898 Workman Creek Road</u>
<u>Beckley, WV 25801</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: Don K. Cunningham *Don K. Cunningham*
 Its: Professional Surveyor
 Address P.O. Box 391
Ashland, KY 41114
 Telephone 606-329-3870

Subscribed and sworn before me this 18th day of March, 1993

Neil W. Santa 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	757
Pennington	757	1701
Avis Lime	1121	1154
U. Maxton	1243	1251
L. Maxton	1611	1689
Little Lime	1701	1791
Big Lime	1791	2078
Borden	2078	2597
M. Weir	2210	2289
Sunbury Shale	2597	2614
Berea	2614	2653
Devonian Shale	2653	T.D.
Gordon	2821	2839

Drillers TD 4693

Loggers TD 4695

85/8 cmt'd to surface on primary job. 11 3/4" cmt'd to surface using additional 43 sx grouted after primary job.

Perf L. Dev. Shale w/.33 jet in SF HCG. 1 SPF @ 4566, 4543, 4515, 4505, 4491, 4473, 4467, 4449, 4445, 4433, 4417, 4405, 4376, 4348, 4320, 4310, 4288, 4273, 4234, 4196, 20H total. N₂ frac using 861,000 scf N₂ and 400 gal 7% Fe HCl. BD @ 4034#, ATP 4192# @ 94,700 scf/m, MTP 4312#, ISIP 2986#.

Perf U. Dev. Shale .33 jets in SF HCG 1 spf @ 3854, 3842, 3785, 3781, 3760, 3758, 3723, 3662, 3653, 3632, 3615, 3595, 3574, 3563, 3511, 3480, 3453, 3397, 3395, 19H total. N₂ frac U. Dev. Shale using 839,000 scf N₂ @ 101,800 scf/m & 500 gal 7½% Fe HCl. BD @ 3506, ATP 4021, MTP 4161, ISIP 2670.

Perforate Gordon w/4" HCG 25H/2826-2834. Swab csg to 2860'. MIRU Howco & dump 500 gal 7½% fe acid. 75 Quality foam frac Gordon using 59,500# 20/40 sand & 220,000 scf N₂ @ 7157 scf/min. BD @ 1075#, ATP 1057 @ 20 bpm foam rate, MTP 1202 & ISIP 1081.

Perforate Weir 44H/2239-2272. 75Q Foam Frac M. Weir using 75,000# 20/40 sand, 267,000 scf N₂ @ 7473 scf/m. BD @ 2874#, ATP 1426# @ 20 B/M, MTP 2874#, ISIP 1486#, TF 180 Bbl.

DR -813

DFT-813



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

- 1) Well Operator: Ashland Exploration, Inc
Rowland Land Company
2) Operator's Well Number: 91, Serial No. 143351 3) Elevation: 1029.4
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: 4883'KB feet
7) Approximate fresh water strata depths: 350'
8) Approximate salt water depths: None Reported
9) Approximate coal seam depths: Solid - No mineable seams
10) Does land contain coal seams tributary to active mine? Yes_/ No_X/
11) Proposed Well Work: Drill and Stimulate New Well
Large amounts of fresh water may be encountered while drilling the surface hole.
12) Arrangements should be made to contain the water or to drill on fluid, should this happen.

CASING AND TUBING PROGRAM

Table with 4 main columns: TYPE, SPECIFICATIONS, FOOTAGE INTERVALS, CEMENT. Rows include Conductor, Fresh Water, Coal, Intermediate, Production, Tubing, and Liners.

PACKERS : Kind
Sizes
Depths set

For Division of Oil and Gas Use Only

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