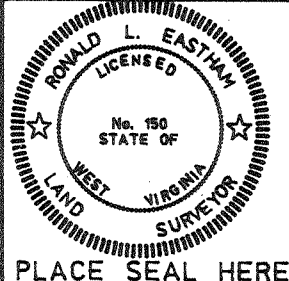


Coords. for Loc. No. 24
 Peabody/Eastern Grid
 N.65,802.25—E.7,348.45
 W.V. State Plane
 N.305,317.84—E.1,791,712.36

FILE NO. _____
 DRAWING NO. _____
 SCALE 1" = 2000'
 MINIMUM DEGREE OF ACCURACY 1:22346
 PROVEN SOURCE OF ELEVATION TBM for Pardee #73
 Elev. = 1418.21

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 November 2, 19 92
 OPERATOR'S WELL NO. Southern Lands Co., et al #24, S.N. 142711
 API WELL NO. _____

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

LOCATION: ELEVATION 1436.24 WATER SHED Spruce Laurel Fork of the Little Coal River
 DISTRICT Washington 5 COUNTY Boone
 QUADRANGLE Lorado Bald Knob WC

SURFACE OWNER The Southern Lands Company, et al ACREAGE 1000
 OIL & GAS ROYALTY OWNER The Southern Lands Company, et al LEASE ACREAGE 15,404
 LEASE NO. 33666

PROPOSED WORK: DRILL ___ CONVERT X DRILL DEEPER ___ REDRILL ___ FRACTURE OR
 STIMULATE ___ 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 5810' KB

WELL OPERATOR Ashland Exploration, Inc. DESIGNATED AGENT Bobby E. Widener
 ADDRESS P.O. Box 391 ADDRESS P.O. Box 379
Ashland, Ky. 41114 Man-Oceana (266) Brenton, W.V. 24818

FORM WW-6

COUNTY NAME PERMIT

Environmental Protection

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

FEB 19 93

Permit
of Oil & Gas

Well Operator's Report of Well Work

Farm name: SOUTHERN LAND CO.

Operator Well No.: 24-S-142711

LOCATION: Elevation: 1436.24

Quadrangle: LORADO

District: WASHINGTON

County: BOONE

Latitude: 14050 Feet South of 37 Deg. 52 Min 30 Sec.

Longitude: 3750 Feet West of 81 Deg. 42 Min. 30 Sec.

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

Agent: B. E. WIDENER

Inspector: RICHARD CAMPBELL

Permit Issued: 11/24/92

Well work Commenced: 12/13/92

Well work Completed: 2/9/93

Verbal Plugging: _____

Permission granted on: _____

Rotary Cable _____ Rig _____

Total Depth (feet) 5803 5803

Fresh water depths (ft) 3" stream @ 17
Damp @ 406'

Salt water depths (ft) _____

None noted

Is coal being mined in area (Y/N)? N

Coal Depths (ft): None noted

| Casing & Tubing | Used in Drilling | Left in Well | Cement Fill Up Cu. Ft. |
|-----------------|------------------|--------------|------------------------|
| Size | | | |
| 20" | 18' | 18' | Driven |
| 16" | 35' | 35' | 7 |
| 11 3/4" | 168' | 168' | 120 |
| 8 5/8" | 1874' | 1874' | 594 |
| 5 1/2" | 5806' | 5806' | 744 |
| 2 3/8" | @ 5603' KB | w/ R-4pkr | @ 3840' |

OPEN FLOW DATA

Producing formation Devonian Shale Pay zone depth (ft) 3711-5701

Gas: Initial open flow 103 MCF/d Oil: Initial open flow --- Bbl/d
Final open flow 978 MCF/d Final open flow --- Bbl/d

Time of open flow between initial and final tests 3 Hours

Static rock pressure 1030# psig (surface pressure) after 72 Hours

Berea 3380-3394

Second producing formation Big Lime Pay zone depth (ft) 2633-2798

Gas: Initial open flow 29 MCF/d Oil: Initial open flow --- Bbl/d
Final open flow 2347 MCF/d Final open flow --- Bbl/d

Time of open flow between initial and final tests 3 Hours

Static rock Pressure 800 psig (surface pressure) after 72 Hours

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1. DETAILS OF PERFORATED INTERVALS, FRACTURING OF STIMULATING, PHYSICAL CHANGE, ETC. 2.) THE WELL LOG WHICH IS A SYSTEMATIC DETIALED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

For: ASHLAND EXPLORATION, INC.

MAR 5 2 1993

Reviewed TMB

By: James L. Stephens James L. Stephens, Eng. Tech

Recorded _____ Date: 2/15/93

| <u>Formation on Rock Type</u> | <u>TOP</u> | <u>BASE</u> |
|-------------------------------|------------|-------------|
| Sand and Shale (Base Lee Fm) | 0 | 1861 |
| Pennington | 1861 | 2494 |
| U. Maxton 2066-2100 | | |
| M. Maxton 2243-2300 | | |
| L. Maxton 2426-2483 | | |
| Little Lime | 2494 | 2575 |
| Big Lime | 2575 | 2892 |
| Borden | 2892 | 3345 |
| Sunbury Shale | 3345 | 3366 |
| Berea | 3366 | 3396 |
| Devonian Shale | 3396 | 5816 |
| Onondaga Lime | 5816 | TD |

DTD 5830
LTD 5814

8 5/8" and 11 3/4" casing cemented to surface on primary job.

Well Treatment

Perf Rhinestreet 18H/5297-5701. Pumped 450 gal 9% HCl-Fe acid. N₂ frac Rhinestreet Shale using 800,000 scf N₂ @ 103,000 scf/min. BD @ 2161, MTP 4139, ATP 4039, ISIP 2793, TF 10 bbls acid. BWD to 1700#.

Perf L. Huron 20H/4516-5021. Pumped 1 bbl wtr and 500 gal 9% HCl-Fe acid. N₂ frac L. Huron using 834,000 scf N₂ @ 99,400 scf/min. BD 3310, MTP 3465, ATP 3356, ISIP 2138, TF 13 bbl. HLS TIH and retrieve RBP @ 5060'.

Perf U. Dev. Shale 19H/3711-4123. Annulus pressure increased from 300# to 1030# after last three perforations - apparent communication. Treatment terminated.

Reperf U. Dev. Shale 6H/3711-3793. N₂ frac U. Dev. Shale w/ 828,000 scf N₂ @ 95,000 scf/min. BD 2574, ATP 2565, MTP 3076, ISIP 1832, 5 min 1447.

Perf Berea 30H/3380-3394. Pumped 3300# 20/40 sand. TD @ 3845. Pumped another 3300# sand. TD @ 3815. Pumped another 3300# sand. TD @ 3700'. 75Q foam frac Berea using 200 gals 16% HCl-Fe acid; 57,000# 20/40 sand; 282,000 scf N₂ @ 8000 scf/min. BD 1137, MTP 1223, ATP 1194 @ 20 BPM foam rate. ISIP 1231, 15 min 1117, TF 179 bbls.

Perf Big Lime 23H/2633-2798. Acidized Big Lime using 65Q foam w/ 500 gals 17% HCl-Fe acid and 2500 gal 29% HCl-Fe acid w/ 105,000 scf N₂ @ 7800-7900 scf/min. BD 1690, MTP 1878, ATP @ 17-20 BPM foam rate, 7 BPM acid rate, ISIP 1591, 15 min 831, TF 23 bbls.

DFE 830
DF = 461

5/10/81

Permitting
 Office of Oil & Gas

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

- 1) Well Operator: Ashland Exploration, Inc., Southern Land Co., et al
- 2) Operator's Well Number: 24, Serial No. 142711 3) Elevation: 1436.2
- 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: 5810' KB feet
- 7) Approximate fresh water strata depths: 50
- 8) Approximate salt water depths: 1032
- 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
- 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 | LS | 42.0 | 30 | 30 | CTS |
| Fresh Water | 11 3/4 | H40 | 42.0 | 100 | 100 | CTS |
| Coal | | | | | | <i>381598 11.3</i> |
| Intermediate | 8 5/8 | J55 | 24.0 | 1895 | 1895 | <i>381598 2.2</i> CTS |
| Production | 4 1/2 | J55 | 10.5 | 5810 | 5810 | As Needed |
| Tubing | 2 3/8 | J55 | 4.7 | - | 5690 | Siphon |
| Liners | | | | | | <i>381598 11.7</i> |

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 Blanket sure Agent
 (Type)

507879
36

RECEIVED

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

ENVIRONMENTAL
NOV 11 1992
3.3

Date: November 9, 1992
Operator's well number
Southern Land Co., et al #24, Serial #142711
API Well No: 47 - 005 - 1570
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 Southern Land Co., et al
Address P.O. Box 1385
Charleston, WV 25325
(b) Name _____
Address _____
(c) Name _____
Address _____
6) Inspector Richard S. Campbell
Address Box 163
Hamlin, WV 25523
Telephone (304)-824-5828

5) (a) Coal Operator:
Name Peabody/Eastern Associated Coal
Address P.O. Box 29
Wharton, WV 25208
(b) Coal Owner(s) with Declaration
Name same as no. 4(a)
Address _____
Name _____
Address _____
(c) Coal Lessee with Declaration
Name Peabody Coal Company
Address P.O. Box 1233
Charleston, WV 25334

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: W. Mark Parks *W. Mark Parks* W.M.P.
Its: Operations Manager
Address P.O. Box 391
Ashland, KY 41114
Telephone (606) 329-5450

Subscribed and sworn before me this 9th day of November, 1992

Richard W. Parks Notary Public
My commission expires Nov 23, 1994