

Approved  
11/21/04

NORTH

8620'

LATITUDE 39°17'30"

LONGITUDE 80°45'00"

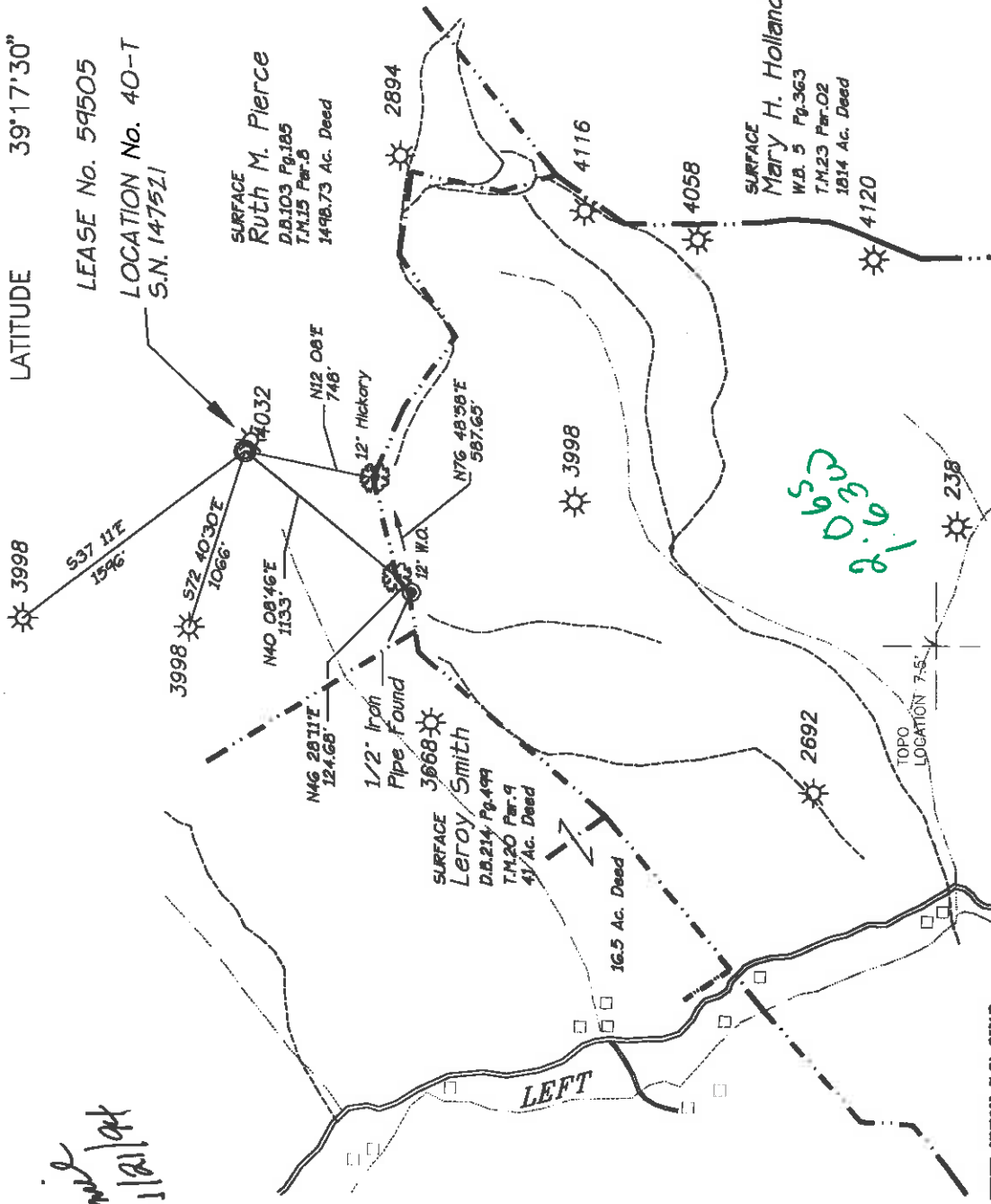
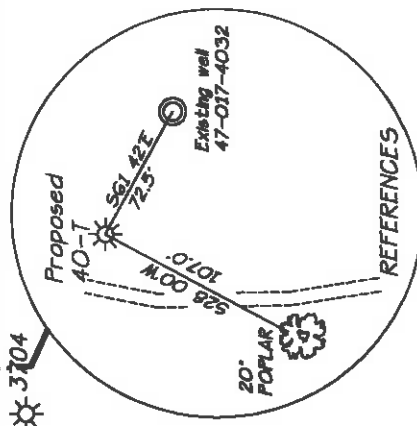
LEASE No. 59505  
LOCATION No. 40-T  
S.N. 147521

SURFACE  
Ruth M. Pierce  
D.B.103 Pg.185  
T.M.15 Per.8  
1498.73 Ac. Deed

SURFACE  
Leroy Smith  
D.B.214 Pg.499  
T.M.20 Per.9  
4 1/2 Ac. Deed

SURFACE  
Mary H. Holland  
W.D. 5 Pg.363  
T.M.23 Per.02  
1814 Ac. Deed

SURFACE  
Mary Farr Secrist  
D.B.184 Pg.544  
T.M.20 Per.14  
832.75 Ac. Deed



WEST UNION 7.5' QUAD.  
OXFORD 7.5' QUAD.

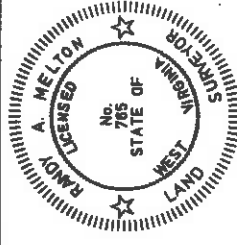
FORK

114

( ) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS

FILE NO. \_\_\_\_\_  
DRAWING NO. ASH-T40DWG  
SCALE 1" = 1000'  
MINIMUM DEGREE OF  
ACCURACY 1:13,000  
PROVEN SOURCE OF  
ELEVATION 803601'  
B.M. R133-1957

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) Randy A. Melton  
R.P.E. \_\_\_\_\_ L.L.S. 165



PLACE SEAL HERE

STATE OF WEST VIRGINIA  
DEPARTMENT OF ENERGY  
OIL AND GAS DIVISION



DATE OCTOBER 18 19 94  
OPERATOR'S WELL NO. 40-T  
API WELL NO. S.N.147521

47-017-04172

WELL TYPE: OIL \_\_\_\_\_ GAS  LIQUID INJECTION \_\_\_\_\_ WASTE DISPOSAL \_\_\_\_\_  
(IF "GAS,") PRODUCTION  STORAGE \_\_\_\_\_ DEEP \_\_\_\_\_ SHALLOW   
LOCATION: ELEVATION 1146.12 WATER SHED LEFT FORK OF ARNOLD CREEK

DISTRICT WEST UNION COUNTY DODDRIDGE  
QUADRANGLE WEST UNION  
SURFACE OWNER Ruth M. Pierce STATE \_\_\_\_\_ COUNTY \_\_\_\_\_  
OIL & GAS ROYALTY OWNER Louis Maxwell et al. LEASE ACREAGE 1498.73 ACREAGE 1498.73

PROPOSED WORK: DRILL  CONVERT  CLEAN OUT AND REPLUG \_\_\_\_\_  
STIMULATE  PLUG OFF OLD FORMATION \_\_\_\_\_ REDRILL \_\_\_\_\_ FRACTURE OR  
FORMATION \_\_\_\_\_ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_\_\_

PLUG AND ABANDON \_\_\_\_\_  
TARGET FORMATION Big Injion ESTIMATED DEPTH 2,100' KB  
WELL OPERATOR Ashland Exploration, Inc. DESIGNATED AGENT A. Roy Chandler  
ADDRESS P.O. Box 391 ADDRESS Rt. 6 Box 178  
Ashland Charleston, W.V. 25311

JAN 10 1996

Permitting  
Office of Oil & Gas

## Well Operator's Report of Well Work

Farm Name: PIERCE, RUTH M. Operator Well No.: 40-T-S-147521  
 Location: Elevation: 1,146.12' Quadrangle: WEST UNION  
 District: WEST UNION County: DODDRIDGE  
 Latitude: 10,800 Feet South of 39 Deg. 17 Min. 30 Sec.  
 Longitude: 8,620 Feet West of 80 Deg. 45 Min. 0 Sec.

Company: ASHLAND EXPLORATION, INC.  
 P.O. BOX 391, OS-2  
 ASHLAND, KY 41114-0391

Agent: B. E. Widener

Inspector: MIKE UNDERWOOD

Permit Issued: 11-21-94  
 Well Work Commenced: 08-07-96  
 Well Work Completed: 09-17-96

Verbal Plugging

Permission granted on: \_\_\_\_\_

Rotary  Cable \_\_\_\_\_ Rig \_\_\_\_\_Total Depth (feet) 2126'Fresh water depths (ft) 45'  
Salt water depths (ft) 1223'Is coal being mined in area (Y/N)? NCoal Depths (ft): 18-20, 418-420, 525-531  
1320-1324

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
10 $\frac{3}{4}$ "	30'	30'	CTS
7"	621'	621'	CTS
4 $\frac{1}{2}$ "	2097'	2097'	128
2 $\frac{3}{8}$ "		1960'	

## OPEN FLOW DATA

Producing formation Big Injun 1936-2019  
Maxton 1795-1804

Gas: Initial open flow 215 Mcf/d Oil: Initial open flow \_\_\_\_\_ Bbl/d  
 Final open flow 119 Mcf/d Final open flow \_\_\_\_\_ Bbl/d  
 Time of open flow between initial and final tests \_\_\_\_\_ Hours  
 Static Rock Pressure 56 psig (surface pressure) after \_\_\_\_\_ Hours

Second Producing formation \_\_\_\_\_

Gas: Initial open flow \_\_\_\_\_ Mcf/d Oil: Initial open flow \_\_\_\_\_ Bbl/d  
 Final open flow \_\_\_\_\_ Mcf/d Final open flow \_\_\_\_\_ Bbl/d  
 Time of open flow between initial and final tests \_\_\_\_\_ Hours  
 Static Rock Pressure \_\_\_\_\_ psig (surface pressure) after \_\_\_\_\_ 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 FORMATION, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

For: Ashland Exploration, Inc.

By: Deanna M. Rose Deanna M. Rose, Asst. Eng.

Date: \_\_\_\_\_ 10-01-96

007 11 1996

Log Tops (KB):

0-18	Sand & Shale
18-20	Coal
20-84	Sand & Shale (Damp @ 45')
84-88	Red Rock
88-112	Sand & Shale
112-126	Red Rock
126-135	Sand
135-148	Red Rock & Sand
148-179	Sand & Shale
179-186	Red Rock
186-199	Sand & Shale
199-218	Red Rock & Sand
218-297	Sand & Shale
297-315	Red Rock
315-333	Sand & Shale
333-341	Red Rock
341-346	Sand & Shale
346-370	Red Rock
370-384	Sand & Shale
384-387	Red Rock
387-418	Sand
418-420	Coal
420-525	Sand & Shale
525-531	Coal
531-542	Sand
542-545	Sand & Shale
545-634	Sand & Shale
634-705	Red Rock & Shale
705-767	Sand & Shale
767-782	Red Rock & Shale
782-868	Sand & Shale
868-880	Sand & Red Rock
880-928	Sand & Shale
928-942	Lime & Shale
942-969	Sand & Shale

969-992	Red Rock & Sand
992-1155	Sand & Shale
1155-1223	Pennington
1223-1281	Upper Maxton (Damp @ 1223')
1281-1253	Shale
1253-1320	Maxton
1320-1324	Coal
1324-1380	Sand & Shale
1380-1387	Shale
1387-1428	Sand & Shale
1428-1437	Shale
1437-1443	Sand & Shale
1443-1450	Sand
1450-1466	Shale
1466-1485	Maxton
1485-1521	Mid Maxton
1521-1525	Sand & Shale
1525-1539	Shale
1539-1542	Sand & Shale
1542-1565	Shale
1565-1583	Sand & Shale
1583-1604	Shale
1604-1609	Sand & Shale
1609-1635	Shale
1635-1658	Sand & Shale
1658-1823	Shale
1823-1849	Little Lime
1849-1855	Shale (GT @ 1852' = 168 Mcf/d)
1855-1865	Sand & Shale
1865-1930	Big Lime (GT @ 1910' = 168 Mcf/d)
1930-2031	Big Injun
2031-2037	Shale
2037-2049	Sand & Shale
2049-2065	Shale
2065-2126	Sand & Shale (GT @ TD = 158 Mcf/d)

Perf Big Injun using 3 1/8" HCG .37 jets 2 spf @ 19H/1936-1945, 25H/1960-1972, 9H/2015-2019. SIW. 75Q foam frac Big Injun using 32,500# 20/40 sand and 122,000 scf N<sub>2</sub> @ 7550 scf/m. BD @ 1618, MTP 2379, ATP 2113 @ 20 BPM foam, ISIP 2261, 10 min 1750, TF 111 bbl dirty, 79 bbl clean.

Perf Maxton under lubricator with 3 1/8" HSC gun from 1795-1804 w/15 holes (.37" dia). Pump 500 gals 15% Fe acid. Attempt to water frac Maxton perms w/30# gel system. BD 2987 (after pressuring up on well several times), ATP 2950 @ 10 BPM, MTP 3369, ISIP 1954, TF 72 bbls. Did not start sand due to high pressure encountered on injection test.

Reperf Maxton using 3 1/8" HCG .33 jets 2 spf @ 15H/1795-1802. Dump 500 gal 16% HCl-Fe acid. Load hole & establish max rate of 15 BPM @ 1750#. ISIP 830, FG 1.4. Water frac Maxton using 7000# 20/40 sand. BD @ 2987, ATP 3300 @ 15 BPM, MTP 3719, ISIP 3490, TF 132 bbl. Screened out. 4000# 20/40 sand left in wellbore.

NUV U 3 1994

STATE OF WEST VIRGINIA

Issued 11/21/94

DEPARTMENT OF ENERGY, DIVISION OF OIL AND GAS

Permitting WELL WORK PERMIT APPLICATION

Expires 11/21/96

Office of Oil & Gas

43 Ashland Exploration, Inc 2750 8 671

Well Operator: Ashland Exploration, Inc 2750 8 671 3) Elevation: 1146.12

20002

Well type: (a) Oil \_\_\_ or Gas X \_\_\_ (b) If Gas: Production X \_\_\_ Underground Storage \_\_\_ Deep \_\_\_ Shallow X \_\_\_

Proposed Target Formation(s): Big Injun 371

Proposed Total Depth: 2100 KB feet

Approximate fresh water strata depths: 92, 395, 437

Approximate salt water depths: 1544'

Approximate coal seam depths: No Mineable Seams - No Coal

Does land contain coal seams tributary to active mine? Yes \_\_\_ No X \_\_\_

Proposed Well Work: Drill and Stimulate New Well

CASING AND TUBING PROGRAM

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

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

For Division of Oil and Gas Use Only. Fees(s) paid: Well Work Permit, Reclamation Fund, Bond, WW-9, WW-2B. Agent: SB Blum.

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**RECEIVED**  
Division of  
Environmental Protection

Permitting 3)  
Office of Oil & Gas

Page 1 of 2  
Form W2-A  
(09/87)  
File Copy

NOV 03 1994

Date: November 1, 1994  
Operator's well number  
Ashland/Maxwell #40-T, Serial #147521  
API Well No: 47 - 017 - 4172  
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 Ruth M. Pierce
  - Address Route 1 Box 161  
Roundtree, VA 22141
  - (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 None
  - Address \_\_\_\_\_
- 6) Inspector Mike Underwood
- Address Rt. 2 Box 135  
Salem, WV 26426
  - Telephone (304) - 782-1043

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:

- X 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  
Its: Senior Engineer  
Address P.O. Box 391  
Ashland, KY 41114

Subscribed and sworn before me this 1st day of November, 1994

*W. W. Potts*  
My commission expires November 23, 1994 Notary Public