



FILE NO. BK 86 P 78-92  
 DRAWING NO. \_\_\_\_\_  
 SCALE 1" = 500'  
 MINIMUM DEGREE OF ACCURACY 1:2500'  
 PROVEN SOURCE OF ELEVATION USGS TOP of knob 2300' south of loc. E1 1095'

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) C. S. Valley Jr.  
 R.P.E. \_\_\_\_\_ L.L.S. 92

PLACE SEAL HERE

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



DATE JULY 16, 1984  
 OPERATOR'S WELL NO. A 1  
 API WELL NO. \_\_\_\_\_  
47 - 035 - 1995  
 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 X STORAGE \_\_\_ DEEP X SHALLOW \_\_\_  
 LOCATION: ELEVATION 944.0 WATER SHED MC CROSKY RUN OF WOLFE CREEK  
 DISTRICT RIPLEY 3 COUNTY JACKSON  
 QUADRANGLE KENNA 7.5' 415 & 15662W1  
 SURFACE OWNER CLOYD R. BROTHERTON ACREAGE 62.25  
 OIL & GAS ROYALTY OWNER CLOYD R. BROTHERTON LEASE ACREAGE 62.25  
 LEASE NO. 125016-000  
 PROPOSED WORK: DRILL X CONVERT \_\_\_ 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 FORMATION ORISKANY ESTIMATED DEPTH 5300'  
 WELL OPERATOR TXO PRODUCTION CORP DESIGNATED AGENT LARRY ALBRECHT  
 ADDRESS 900 CHARLESTON NATIONAL PLAZA ADDRESS 900 CHARLESTON NATIONAL PLAZA  
889 CHARLESTON WV 25301 CHARLESTON WV 25301

SEP 24 1984

RECEIVED

IV-35  
(Rev 8-81)

DEC 14 1984

OIL & GAS DIVISION  
DEPT. OF MINES



State of West Virginia  
Department of Mines  
Oil and Gas Division

Date December 10, 1984  
Operator's Brotherton "A" #1  
Well No. Brotherton "A" #1  
Farm \_\_\_\_\_  
API No. 47 - 035 - 1995

WELL OPERATOR'S REPORT  
OF  
DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

WELL TYPE: Oil \_\_\_ / Gas X / Liquid Injection \_\_\_ / Waste Disposal \_\_\_ /  
(If "Gas," Production X / Underground Storage \_\_\_ / Deep \_\_\_ / Shallow X /)

LOCATION: Elevation: 944' Watershed McCrosky Run of Wolfe Creek  
District: Ripley County Jackson Quadrangle Kenna

COMPANY TXO Production Corp.

ADDRESS 900 Charleston National Plaza  
Charleston, WV 25301

DESIGNATED AGENT Kenneth Tatarzyn  
900 Charleston National Plaza  
Charleston, WV 25301

SURFACE OWNER Cloyd R. Brotherton

ADDRESS P. O. Box 36, Millwood, WV 25262

MINERAL RIGHTS OWNER Same

ADDRESS \_\_\_\_\_

OIL AND GAS INSPECTOR FOR THIS WORK Jerry

Tephabock ADDRESS Rt. 1, Box 101-A, Ripley,  
WV 25371

PERMIT ISSUED 09-18-84

DRILLING COMMENCED 10-9-84

DRILLING COMPLETED 11-19-84

IF APPLICABLE: PLUGGING OF DRY HOLE ON  
CONTINUOUS PROGRESSION FROM DRILLING OR  
REWORKING. VERBAL PERMISSION OBTAINED  
ON \_\_\_\_\_

Casing & Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft.
Size 20-16 Cond.			
13-10"			
9 5/8	916'	916	320 sx
8 5/8			
7	2680'	2680'	90 sx
5 1/2			
4 1/2	5671'	5671'	250 sx
3			
2			
Liners used			

GEOLOGICAL TARGET FORMATION Newburg Depth 6000' feet

Depth of completed well 4995 PBTD feet Rotary X / Cable Tools \_\_\_\_\_

Water strata depth: Fresh \_\_\_\_\_ feet; Salt \_\_\_\_\_ feet

Coal seam depths: \_\_\_\_\_ Is coal being mined in the area? \_\_\_\_\_

OPEN FLOW DATA

Producing formation Devonian Shale Pay zone depth 4848'-3382' feet

Gas: Initial open flow 250 Mcf/d Oil: Initial open flow \_\_\_\_\_ Bbl/d

Final open flow 250 Mcf/d Final open flow \_\_\_\_\_ Bbl/d

Time of open flow between initial and final tests \_\_\_\_\_ hours

Static rock pressure 980 psig (surface measurement) after 120 hours shut in

(If applicable due to multiple completion--)

Second producing formation \_\_\_\_\_ Pay zone depth \_\_\_\_\_ feet

Gas: Initial open flow \_\_\_\_\_ Mcf/d Oil: Initial open flow \_\_\_\_\_ Bbl/d

Final open flow \_\_\_\_\_ Mcf/d Oil: Final open flow \_\_\_\_\_ Bbl/d

Time of open flow between initial and final tests \_\_\_\_\_ hours

Static rock pressure \_\_\_\_\_ psig (surface measurement) after \_\_\_\_\_ hours shut in

DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC.

Perf'd Onondaga & Oriskany w/3-1/8" csg gun, 10 gm chg 5048'-52', 5054'-58', 5098'-5102' @ 15/SF & 5139'-44' @ 2 SPF; total 20 shots.

Frac'd Onondaga & Oriskany w/38 bbls HCl, 600 bbls gel, 100 mcf N2, 20,000# 20/40 sd. tested 40 MCFD + 30 bwd w/650 psi SICP. Plugged back to 4995'.

Perf'd Devonian Shale <sup>Rhinestreet</sup> 4845', 4756', 4746', 4741', 4529', 4329', 4394', 4377', 4364', 4334', 4331', 4298', ~~4272'~~, 4268', 4143', 4087', 4060', <sup>Huron</sup> total 14 shots.

<sup>Huron</sup> Perf'd Devonian Shale 3938', 3877', 3812', 3086', 3782', 3761', 3751', 3728', 3699', 3624', 3428', 3410', 3397', 3382'; total 14 shots.

Frac'd Devonian Shale in 2 stages w/ 2 mmcf N2, 500 gal HCl, tested 250 mcf w/ 980 psi SICP.

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS
					Including indication of all fresh and salt water, coal, oil and gas
Sand & Shale			0	821	
*lower Pittsburg Sand			821	853	
Salt Sands			1416	1877	
Maxon			1885	2031	
Big Lime			2031	2112	
Big Injun			2112	2126	
Squaw			2160	2183	
Weir Sands			2189	2274	
Sunbury			2609	2630	
Berea			2630	2643	Show of gas
Devonian Shale			2643	5034	Show of gas
Onondaga/Huntersville			5034	5130	Show of gas
Oriskany			5130	5148	Show of gas
Helderberg			5148	5348	
<u>Salina undiff.</u>			5348	5675 TD	Show of water

(Attach separate sheets as necessary)

TXO Production Corp.  
Well Operator  
By: Kenneth Tatarzyn *K Tatarzyn*  
Date: December 10, 1984

Note: Regulation 2.02(i) provides as follows:  
"The term 'log' or 'well log' shall mean a systematic detailed geological record of all formations, including ~~any~~ encountered in the drilling of a well."



1) Date: August 28, 19 84  
 2) Operator's Well No. Brotherton "A" #1  
 3) API Well No. 47 - 035 - 1995  
 State \_\_\_\_\_ County \_\_\_\_\_ Permit \_\_\_\_\_

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

- 4) WELL TYPE: A Oil \_\_\_\_\_ / Gas X \_\_\_\_\_  
 B (If "Gas", Production \_\_\_\_\_ / Underground storage \_\_\_\_\_ / Deep X / Shallow \_\_\_\_\_)
- 5) LOCATION: Elevation: 944.0 / Watershed: McCrosky Run Wolfe Creek of Parchment Creek 032H  
 District: Ripley / County: Jackson / Quadrangle: Kenna 7.5
- 6) WELL OPERATOR TXO Production / 7) DESIGNATED AGENT Larry Albrecht  
 Address 900 Charleston National Plaza / Address 900 Charleston National Plaza  
Charleston, WV 25301 / Charleston, WV 25301
- 8) OIL & GAS INSPECTOR TO BE NOTIFIED / 9) DRILLING CONTRACTOR:  
 Name Richard J. Morris / Name HOMER DOUGHERTY / Name FWA Drilling Co., Inc.  
 Address P. O. Box 372 / Address LOONEYVILLE, WV / Address P. O. Box 448  
Grantville, WV 26147 / 927-4591 / Elkview, WV 25071
- 10) PROPOSED WELL WORK: Drill X / Drill deeper \_\_\_\_\_ / Redrill \_\_\_\_\_ / Stimulate \_\_\_\_\_  
 Plug off old formation \_\_\_\_\_ / Perforate new formation \_\_\_\_\_  
 Other physical change in well (specify) \_\_\_\_\_
- 11) GEOLOGICAL TARGET FORMATION, Oriskany  
 12) Estimated depth of completed well, 5800' feet  
 13) Approximate strata depths: Fresh, 300 & 844 feet; salt, \_\_\_\_\_ feet.  
 14) Approximate coal seam depths: \_\_\_\_\_ Is coal being mined in the area? Yes \_\_\_\_\_

**RECEIVED**  
 AUG 30 1984  
 OIL & GAS DIVISION  
 No X  
**DEPT. OF MINES**

15) CASING AND TUBING PROGRAM

CASING OR TUBING TYPE	SPECIFICATIONS					FOOTAGE INTERVALS		CEMENT FILL-UP OR SACKS (Cubic feet)	PACKERS
	Size	Grade	Weight per ft.	New	Used	For drilling	Left in well		
Conductor	9-5/8			X		874 <del>300</del>	874 <del>300</del>	CTS by 15.0	Kinds
Fresh water									
Coal	7"			X		2600'	2600'	Per reg 15.0	Sizes
Intermediate									
Production	4-1/2			X		5800'	5800'	Per reg 15.0	Depths set
Tubing									
Liners									Perforations: Top Bottom

OFFICE USE ONLY  
 DRILLING PERMIT

Permit number 47-035-1995 / Date September 18, 19 84

This permit covering the well operator and well location shown below is evidence of permission granted to drill in accordance with the pertinent legal requirements subject to the conditions contained herein and on the reverse hereof. Notification must be given to the District Oil and Gas Inspector, (Refer to No. 8) Prior to the construction of roads, locations and pits for any permitted work. In addition, the well operator or his contractor shall notify the proper district oil and gas inspector 24 hours before actual permitted work has commenced.)

The permitted work is as described in the Notice and Application, plat, and reclamation plan, subject to any modifications and conditions specified on the reverse hereof.

Permit expires September 18, 1986 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond: <u>BLANKET</u>	Agent: <u>lp</u>	Plat: <u>MH</u>	Casing: <u>MH</u>	Fee: <u>43895</u>
<u>154</u>				

Margaret J. Hesse  
 Administrator, Office of Oil and Gas

NOTE: Keep one copy of this permit posted at the drilling location.