

State of Maryland
 Department of Natural Resources
 Energy & Coastal Zone Administration
 Tawes State Office Building
 Annapolis, Maryland 21401

Permit Number 111
 Well Number M. Rush #5
 Company Texas Eastern
 County Garrett

COMPLETION REPORT

(oil or gas well)

This report must be submitted within 30 days after completion of the well

WELL DESCRIPTION - KIND OF WELL: Gas Storage

(Oil, Gas, Other)

NAME & WELL NO.	Size of Casting and Tubing	Used in Drilling	Left in Well	Packers: Type, Size and Depth
M. Rush #5				
ELEVATION: <u>2449</u> LEASE: <u>Wellborn</u>	<u>20" OD</u>		<u>22'</u>	<u>None</u>
DRILLING COMMENCED: <u>8-22-77</u> DRILLING COMPLETED: <u>10-9-77</u>	<u>13 3/8" OD</u>		<u>591'</u>	<u>None</u>
PRODUCTION: <u>Gas Storage Wells</u>	<u>9 5/8" OD</u>		<u>2982'</u>	<u>None</u>
Natural flow too small to measure.	<u>7" OD</u>		<u>7676'</u>	<u>None</u>
SURFACE RESERVOIR PRESSURE <u>92</u> psig <u>12</u> hrs.				
WELL TREATMENT: (Shooting, Acidizing, Fracturing, Etc.)				
I. Acidized OH Orisk 7680-7770' w/5000 gals 15% HCL NE Acid				PERFORATIONS AT: <u>None, Completed</u>
II. Acid-sand-frac OH Orisk 7680-7770' w/40,000 gals 5% HCL, 60,000# 100 mesh sd.				<u>Open hole Oriskany</u>

CEMENTING DATA: (Size Pipe, Depth, No. Bags, Date)

	<u>20" Casing - cemented with 22 sx Reg. 2% CaCl₂</u>
	<u>13 3/8" Casing - Cemented with 250 sx Thixotropic cement and 100 sx Class "H" 2% CaCl₂</u>
RESERVOIR PRESSURE AFTER TREATMENT:	<u>9 5/8" Casing - Cemented with 700 sx Halliburton lite and 200 sx Class "H" 2% CaCl₂</u>
<u>Not Taken</u>	<u>7" Casing - Cemented 2 stages - 1st 325 sx 25-75 Poz and 60 sx Latex; 2nd stage 1050 sx 25-75 Poz and 60 sx Latex.</u>
RESULTS AFTER TREATMENT:	
<u>460 MCFGD</u>	

REMARKS:

Halliburton Pkr Shoe 7676'
 Halliburton DV Pkr 6273'

GEOPHYSICAL LOGS (Type of Geophysical Logs Run on Well)

GR Directional; Form Density; Temp.

GEOLOGICAL LOG

FORMATION	TOP	BOTTOM	GAS AT	OIL AT	WATER AT (Fresh or Salt Water)	REMARKS
Tully Lime	6758	6770				
Onondaga Lime	7511	7528				
Huntersville Chert	7534	7649				No gas in Chert
Needmore Shale	7649	7680				
Oriskany Sand	7680	7770				
Heldeberg Lime	7770	----	TD Log Depth	7788'		Gas Flo natural too small to meas.

This completion report is accurate to the best of my knowledge.

Date January 18, 1978

APPROVED *A. J. Lunde*

By Sr. Engineer
(Title)

COMPANY Texas Eastern Trans Corp

ENERGY AND COASTAL ZONE ADMINISTRATION
 DEPARTMENT OF NATURAL RESOURCES
 TAWES STATE OFFICE BLDG.
 TAYLOR AVENUE
 ANNAPOLIS, MARYLAND 21401

APPLICATION FOR PERMIT TO DRILL OIL OR GAS WELL

(Applications must be submitted in triplicate)

Rush, Well#5

OWNER Texas Eastern Transmission Corporation

STREET or R.F.D. P.O. Box 2521

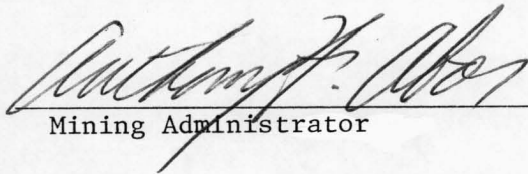
POST OFFICE Houston, Texas 77001

PERMIT TO DRILL WELL

NOT TO BE FILLED IN BY APPLICANT

PERMIT NO. 111

The permit is herewith granted subject to the conditions stipulated.


 Mining Administrator

Date July 11, 1977

Special conditions that may apply:

Gas storage well only
 additional requirements attached

LOCATION OF WELL

COUNTY Garrett

NEAREST POST OFFICE Accident

Distance from Post Office 13,604.60'

Direction from Post Office S 85° 02' 15" W

APPROXIMATE DEPTH OF WELL (feet) 7800

METHOD OF DRILLING Rotary

DEEPEST GEOLOGIC FORMATION
 WELL WILL BE DRILLED Into Helderberg

DISTANCE OF WELL LOCATION
 TO NEAREST BUILDING (feet) No building within 1000'

NUMBER OF SHIFTS PER DAY 3

LICENSED DRILLER IN CREW OF EACH SHIFT

<u>NAME</u>	<u>ADDRESS</u>
Melvin M. England	Box 214, Grantsville, M.D.
Clifford Hames	Box 591, Buchannon, W.Va.
John L. Nestor	Box 205, Hambleton, W.Va.
Ernest W. Nazelrod	Friendsville, Maryland

These names may be supplied later but before drilling begins

The names and post office addresses of the owners of the tracts of land included on the plat or map accompanying the application are to be given below. See attached.

NOTE

A BOND FOR \$2,500 PAYABLE TO THE STATE OF MARYLAND MUST ACCOMPANY THE APPLICATION
 THIS APPLICATION FORM MUST BE FILLED OUT WITH TYPEWRITER OR IN BLOCK LETTERS