



Minimum Error of Closure 1 in 200'

Source of Elevation Elevation Well No. 31 = 1252'

- Fracture
- New Location
- Drill Deeper
- Abandonment

I, the undersigned, hereby certify that this map is correct to the best of my knowledge and belief and shows all the information required by paragraph 6 of the rules and regulations of the oil and gas section of the mining laws of West Virginia.

Signed: M. J. [Signature]  
Squares: N S E W

Map No. \_\_\_\_\_

Company Carnegie Natural Gas Company  
 Address Munhall, Pennsylvania  
 Farm Lee-man Maxwell  
 Tract Acres 21.54 Lease No. 6764  
 Well (Farm) No. Four Serial No. 325  
 Elevation (Spirit Level) 987'  
 Quadrangle Halbrook NE  
 County Doddridge District West Union  
 Engineer [Signature]  
 Engineer's Registration No. 1227  
 File No. \_\_\_\_\_ Drawing No. \_\_\_\_\_  
 Date July 4, 1970 Scale 1" = 50p = 825'

STATE OF WEST VIRGINIA  
 DEPARTMENT OF MINES  
 OIL AND GAS DIVISION  
 CHARLESTON

**WELL LOCATION MAP**

FILE NO. DDO-43-3-2413

+ Denotes location of well on United States Topographic Maps, scale 1 to 62,500, latitude and longitude lines being represented by border lines as shown.  
 - Denotes one inch spaces on border line of original tracing.



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STATE OF WEST VIRGINIA  
DEPARTMENT OF MINES  
OIL AND GAS DIVISION

Rotary   
Cable Tools   
Storage  C. HOLL  
Oil or Gas Well  **GAS**  
(KIND)

Quadrangle Holbrook N.E.  
Permit No. DOD-43-FRAC.

WELL RECORD

Company Carnegie Natural Gas Company  
Address 3904 Main Street, Monhall, Pa. 15120  
Farm Lesman Maxwell Acres 216 1/2  
Location (waters) \_\_\_\_\_  
Well No. 4-325 Elev. 987  
District West Union County Doddridge  
The surface of tract is owned in fee by \_\_\_\_\_  
Address \_\_\_\_\_  
Mineral rights are owned by \_\_\_\_\_  
Address \_\_\_\_\_

Casing and Tubing	Used in Drilling	Left in Well	Packers
Size			Kind of Packer
16			
13			
10	169	169	Size of
8 1/4	864	864	
6 3/4	1840	1685	Depth set
5 3/16			
4 1/2			
3 1/2	2285	2285	Perf. top 2238
2	2425	Pulled	Perf. bottom 2244
Liners Used			Perf. top 1626
			Perf. bottom 1640

Cleaning Out 5/3/71  
Cleaning Out 7/19/71  
Date Shot From \_\_\_\_\_ To \_\_\_\_\_  
With \_\_\_\_\_  
Open Flow /10ths Water in \_\_\_\_\_ Inch  
/10ths Merc. in \_\_\_\_\_ Inch  
Volume 14,500 Cu. Ft.  
Rock Pressure \_\_\_\_\_ lbs. \_\_\_\_\_ hrs.  
Oil \_\_\_\_\_ bbls., 1st 24 hrs.

Attach copy of cementing record. (400) (7/8/71)  
CASING CEMENTED 4" (4" size) 400 No. Ft. 6/14/71 Date  
Amount of cement used (bags) 100 (60)  
Name of Service Co. Garaton Service Inc.  
COAL WAS ENCOUNTERED AT \_\_\_\_\_ FEET \_\_\_\_\_ INCHES  
\_\_\_\_\_ FEET \_\_\_\_\_ INCHES \_\_\_\_\_ FEET \_\_\_\_\_ INCHES  
\_\_\_\_\_ FEET \_\_\_\_\_ INCHES \_\_\_\_\_ FEET \_\_\_\_\_ INCHES

WELL ACIDIZED (DETAILS) \_\_\_\_\_  
WELL FRACTURED (DETAILS) 6/22/71 - 500 gals. acid; 385 bbls. water; 15,000# sand  
7/15/71 - 1,500 gals acid; 493 bbls. water; 29,000# sand.  
RESULT AFTER TREATMENT (Initial open Flow or bbls.) 6/22/71 - 67,000 cu.ft. 7/15/71 - 1,205,000 cu.ft.  
ROCK PRESSURE AFTER TREATMENT 305 (1 st.) 410 HOURS 64 (1st) 64  
Fresh Water \_\_\_\_\_ Feet \_\_\_\_\_ Salt Water \_\_\_\_\_ Feet  
Producing Sand Big Injun Depth 1626-1640

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth	Remarks
1st. Salt Sand			1260	1289	Show gas	1273	
2nd Salt Sand			1351	1357	Show gas	1344	
Little Lime			1475	1498			
Pencil Cave			1498	1508			
Big Lime			1508	1575			
Big Injun			1575	1651			
Gantz Sand			1870	1960	Gas	1875	
50' Sand			2025	2065			
30' Sand			2210	2250	Gas	2242	
Gordon Sand			2365	2369			
Total Depth				2425			
Plugged with stone, clay, cement				2285			

Run 2285' of 4" tubing and cemented with 100 sacks. Cleaned out to 2265' and fractured 2238'-2244'. Set bridge @ 2021' and squeezed 4" @ 1873' with 60 sacks. Fractured Big Injun