

Minimum Error of Closure 1' in 200'
 Source of Elevation Levels From Well #471

"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."

New Location.....
 Drill Deeper.....
 Abandonment.....

MAP SHEET 69, S-21 W-2; F.B. 1327, P. 32, 33, # 35

Company HOPE NATURAL GAS CO.
 Address CLARKSBURG, W.VA.
 Farm HARRIET M. JARVIS, ETAL.
 Tract _____ Acres 70 Lease No. 60702
 Well (Farm) No. _____ Serial No. 10673
 Elevation (Spirit Level) 1166'
 Quadrangle VADIS C.
 County DODDRIDGE District NEW MILTON
 Engineer Jackson M. Jarvis.
 Engineer's Registration No. 2397
 File No. _____ Drawing No. _____
 Date SEPT. 9, 1964 Scale 1" = 40 POLES

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

WELL LOCATION MAP
 FILE NO. DOD-1184

† 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.

FORMATION	Open or Close Hard or Soft	TOP /	BOTTOM	Steel Line Measurement	Water Found Depth	Oil Found Depth	Gas Found Depth	REMARKS
Gravels	Brown	0	17					
Shale	Dark	17	27					
Sand	Light	27	50					
Sand	Light	50	85					
Shale	Dark	85	115					
Sand	Light	115	150					
Sand	Light	150	170					
Sand & Shale		170	220					
Shale		220	250					
Sandy Shale		250	265					
Sand		265	290					
Sandy Shale	Med	290	385					
Shale	Red & Gr	385	477					
Sand	Med Br	477	525					
Shale & Sand	H. M. Br	525	590					
Shale & Sand	Gr Sh	590	625					
Shale & Sand	Red Sh	625	635					
Shale	Green	635	650					
Sand & Shale	Broken	650	670					
GH COAL	Black	670	674					
Sand	White	679	740					
Sandy & Lt Sh	Med Gr	740	835					
Shale	Red Sh	835	910					
Shale	Green	910	920					
Sand Shale	Gray Sh	920	950					
Shale	Red	950	970					
Sandy Shale	Gray	970	1030					
Sandy Shale	Red & Gr	1030	1040					
Sandy Shale	Gray	1040	1055					
Sand		1055	1160					
Sandy Shale	Grey	1160	1240					
Sand	Grey	1240	1290					
Sandy Shale	Gray	1290	1310					
MS		1310	1490					
Sandy Shale		1490	1530					
ST SALT		1530	1575					
Sandy Shale		1575	1600					
Sand	Little Sh	1600	1640					
Sandy Shale	Gray	1640	1650					
Sand		1650	1680					
Sandy Shale		1680	1710					
ST SALT		1710	1780					
Sandy Shale		1780	1880					
Lime & Shale		1880	1890					
Sandy Shale		1890	1925					
Shale	Red	1925	2065					
Lime & Shale		2065	2130					
LG LIME		2130	2175					
LUN	Light	2175	2272					
Sand	Med	2272	2330			2215 to 2220		
Sand		2330	2400					
Sandy Shale		2400	2480					
at Core		2480						
ored		2480	2532					
nal T. D.		2532						
By Schlumberger Survey								

WEST SECOND

REVENUE OF MICHIGAN

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STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION

Rotary
Spudder
Cable Tools
Storage

adrangle VADIS
ermit No. DOD-1184

WELL RECORD

Oil or Gas Well Storage
(KIND)

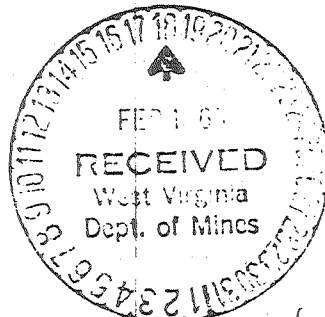
Company Hope Natural Gas Company
Address Clarksburg, W. Va.
Name Harriet M. Jarvis Acres 70
Location (waters) _____
Well No. 10673 Elev. 1166
District Cove County Doddridge
The surface of tract is owned in fee by _____
Address _____
General rights are owned by _____
Address _____
Drilling commenced 10-3-64
Drilling completed 10-17-64
Date Shot Not shot From _____ To _____
Flow _____ /10ths Water in _____ Inch
_____ /10ths Merc. in _____ Inch
Volume 35 M Cu. Ft.
Back Pressure 350 lbs. 72 hrs.
_____ bbls., 1st 24 hrs.
WELL ACIDIZED No
WELL FRACTURED No

Casing and Tubing	Used in Drilling	Left in Well	Packers
Size			Kind of Packer
16			
13	17	17	
12 9-5/8"	700	700	Size of
8 1/4			
6 3/8	2456	2456	Depth set
5 3/16			
3			Perf. top
2			Perf. bottom
Liners Used			Perf. top
			Perf. bottom

CASING CEMENTED _____ SIZE _____ No. Ft. _____ Date _____
7" casing cemented to surface
COAL WAS ENCOUNTERED AT None FEET _____ INCHES
_____ FEET _____ INCHES FEET _____ INCHES
_____ FEET _____ INCHES FEET _____ INCHES

RESULT AFTER TREATMENT _____
BACK PRESSURE AFTER TREATMENT _____
Fresh Water not recorded Feet _____ Salt Water not recorded Feet _____

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth	Remarks
THIS RECORD TAKEN FROM GAMMA RAY LOG							
Gas Sand			1220	1496			
1st Salt sand			1507	1558			
3rd Salt Sand			1756	1796			
Little Lime			- 2072	2087			
Big Lime			- 2112	2164			
BIG INJUN			2164	2265	Gas	2241-55'	
GANTZ			- 2487	2513	Gas	2493-2503'	
Total Depth				2532'			



February 17, 1965

Jack Gailey
Hope Natural Gas Company