



2.25 S
0.35 W
+
LONGITUDE 81 ° 15'

Minimum Error of Closure 1' in 200

Source of Elevation U.S.G.S. B.M. - shown - = 634

- 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: [Signature]
Squares: N S E W

Map No.

Company HAROLD G. LEIN
 Address St. Marys, West Va.
 Farm J. F. Williamson
 Tract _____ Acres 44.15 Lease No. _____
 Well (Farm) No. One Serial No. _____
 Elevation (Spirit Level) 617
 Quadrangle Marietta EC
 County Pleasants District Grant
 Engineer [Signature]
 Engineer's Registration No. 1227
 File No. _____ Drawing No. _____
 Date August 24, 1968 Scale 1" = 300' = 495'

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

WELL LOCATION MAP

FILE NO. PLEAS - 645

+ 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.



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION

- Rotary
- Spudder
- Cable Tools
- Storage

WELL RECORD

Oil or Gas Well Oil Gas (KIND)

Quadrangle Marietta

Permit No. 1545

Company Harold G. Lien
 Address St Marys W. Va Box 221
 Farm J.F. Williamson Acres 44
 Location (waters) Ohio River
 Well No. # 1 Elev. 617
 District Grant County Pleasants
 The surface of tract is owned in fee by J.F. Williamson
 Address Belmont W. Va.
 Mineral rights are owned by J.F. Williamson
 Address Belmont W. Va.
 Drilling commenced Sept 10 1968
 Drilling completed Oct 19 1968
 Date Shot From To

Casing and Tubing	Used in Drilling	Left in Well	Packers
Size			Kind of Packer
16	30	30	
13	73	73	
10	380		Size of
8 1/4	942		
6 1/4	1390		Depth set
5 3/16	2468	2468	
4 1/2			
3		2434	Perf. top
2			Perf. bottom
Liners Used			Perf. top
			Perf. bottom

Open Flow SHOW /10ths Water in Inch
 /10ths Merc. in Inch
 Volume Cu. Ft.
 Rock Pressure lbs. hrs.
 Oil SHOW bbls., 1st 24 hrs.
 WELL ACIDIZED (DETAILS) 2,000 BL of Water
80,000 lbs of Sand
 WELL FRACTURED (DETAILS)

Attach copy of cementing record.
 CASING CEMENTED 5 1/2 SIZE No. Ft. 2468 Date
 Amount of cement used (bags) 100
 Name of Service Co. Dowell
 COAL WAS ENCOUNTERED AT None FEET INCHES
 FEET INCHES FEET INCHES
 FEET INCHES FEET INCHES

RESULT AFTER TREATMENT (Initial open Flow or bbls.) Show of Oil 1,200.000 - Gas 10 BOPD
 ROCK PRESSURE AFTER TREATMENT 540 HOURS 24 1,200 McF + 10 BOPD
 Fresh Water Feet Salt Water 2200 Feet
 Producing Sand Ohio Shales Devonian Sh Depth 2468 OA

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth	Remarks
Gravel		Spft	0	64			
Sand & Shale	Gray	Spft	64	90			
Shale	Black	..	90	130			
Shale	Pink	..	130	145			
Sand-Shale	..	..	145	160			
Shale	Red	..	160	170			
Shale	Gray	..	170	240			
Broken Sand	Gray	..	240	270			Show of Oil 250 to 260
Shale	..	..	270	320			
Lime	Black	..	320	401			Show of Oil 401
Sand & Shell	Gray	..	401	435			
Shale	Black	..	435	440			Show of Gas 635
Sand	Gray	HARD	440	505			
Shells	Black	..	505	516			
Sand & Shell	Gray	..	516	620			
Shale	Black	Hard	620	627			
Lime	Black	..	627	645			
Lime & Shells	Gray	Soft	645	692			
Sand & Shell	Gray	HARD	692	932			
Lime	Dark Gray	Hard	932	960			8" Pipe at 942
Lime-Shale	..	..	960	985			
Slate	Black	Medium	985	1352			
Green-sand	Gray	Hard	1352	1380			7" Pipe at 1390
Lime-Shale	Dark	Hard	1380	1438			
Lime-sand	Gray	Hard	1438	1458			
Shale	Dark	Hard	1458	1474			
Sand-Lime	Gray	..	1474	1568			
Shale-Lime	..	..	1568	1625			Oil & Gas at 1352 to 1362



