

Company THE OWENS, LIBBEY-OWENS GAS DEPT.
 Address BOX 1375 CHARLESTON W.VA.
 Farm KOONCE & ZIMMERMAN
 Tract _____ Acres 1666 Lease No. 585
 Well (Farm) No. 2 Serial No. 599
 Elevation (Spirit Level) 645.9
 Quadrangle WAYNE SW
 County WAYNE District LINCOLN
 Engineer T.S. Flannery
 Engineer's Registration No. 269
 File No. _____ Drawing No. _____
 Date 2-21-41 Scale 1" = 1000 FT.

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

WELL LOCATION MAP
 FILE NO. WAY-236

+ 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.

Deep Well

WEST VIRGINIA DEPARTMENT OF MINES
OIL & GAS DIVISION
W E L L R E C O R D

Permit No. Way-236
Wayne Quad.

Gas Well

Company The Owens, Libbey-Owens Gas Dept.,
Address Box 1375, Charleston, W. Va.
Farm Koonce & Zimmerman ACRES 1666
Location Lost Creek
Well No. 599 ELEV. 646
District Lincoln - Wayne County
Surface & Mineral Koonce & Zimmerman, % W.W. Zimmerman
Dollar Bank Bldg., Youngstown, Ohio
Commenced March 20, 1941
Completed May 8, 1941
Shot 5/6/41 - depth 2308-2588
Open Flow 13/10ths W in 2 inch
Volume 113,000 c.f.
Rock Pressure 400 lbs. 24 hrs.
Fresh Water 20
Salt Water 584 and 610

CASING & TUBING

10	23	23
8-1/4	294	294
6-5/8	987	987
3	2592	2592

Packer - Oil Well Comb.
Depth set - 1088-1093
Size - 3x6-5/8x16
Perf. - 2482-2487
2508-2513
2534-2539
2560-2565

Coal at 136' 60"
269 36

Surface	dk	s	0	19	Slate	md	s	1663	1682
Quick Sand	dk	s	19	29	Shell	lt	h	1682	1690
Slate	dk	s	29	90	Slate	dk	s	1690	1735
Sand	gr	s	90	125	Shale	bn	s	1735	1743
Slate	dk	s	125	136	Berea	wh	h	1743	1778
Coal	bk	s	136	141	Slate&Shells	dk	m	1778	1841
Slate	lt	s	141	165	Slate	lt	s	1841	1862
Sand	lt	s	165	185	Shell	dk	h	1862	1871
Slate	gr	s	185	236	Shale	bn	s	1871	1955
Sand	lt	h	236	269	Slate&Shells	lt	s	1955	1997
Coal	lt	s	269	272	Slate	dk	s	1997	2037
Sand	gr	m	272	283	Slate	gr	s	2037	2123
Slate	dk	s	283	322	Shale	bn	s	2123	2220
Sand	gr	s	322	347	Slate	dk	s	2220	2256
Slate	dk	s	347	364	Shale	bn	s	2256	2271
Sand	wh	m	364	418	Slate	wh	s	2271	2308
Slate	dk	s	418	492	Shale	bn	s	2308	2362
Sand	gr	s	492	515					Gas 2330
Slate	dk	s	515	517	Slate	lt	s	2362	2375
Sand	wh	s	517	587	Shell	gr	h	2375	2380
Sand	wh	m	587	637	Shale	bn	s	2380	2556
Sand	wh	h	637	668					Gas 2456
Slate	dk	s	668	674					16,773 CF
Sand	lt	m	674	679					Gas 2521
Slate	dk	s	679	688	Shell	dk	h	2556	2561
Sand, broken	dk	s	688	750	Shale	bn	s	2561	2588
Sand, broken	lt	s	750	812	Slate	lt	s	2588	2801
Sand	dk	m	812	834	Shale	bn	s	2801	2857
Shale	bn	s	834	851	Gas 851 Show	Corniferous L	wh	h	2857
Shell	lt	h	851	863					2879
Slate&Shells	lt	h	863	874	Total Depth				2379
Slate	dk	s	874	903	Hole filled up				2379 2588
Slate&Shells	dk	m	903	920					
Slate	dk	s	920	953					
Shell	gr	h	953	961					
Little Lime	dk	h	961	987					
Lime	gr	h	987	996					
Big Lime	wh	h	996	1171					
Big Injun	bl	h	1171	1239	Gas 1225-1230				28,000 c.f.
Broken Sand	dk	s	1239	1284					
Slate&Shells	dk	s	1284	1366					
Slate	dk	s	1366	1463					
Slate&Shells	dk	s	1463	1508					
Slate	dk	s	1508	1528					
Shells	dk	h	1528	1538					
Slate	lt	s	1538	1558					
Slate	dk	s	1558	1638					
Slate	lt	s	1638	1648					
Shell	dk	m	1648	1663					



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION 15

Quadrangle Wayne
Permit No. Way-236-Rev.

WELL RECORD

Oil or Gas Well _____ Gas
(KIND)

Company OWENS, LIBBEY-OWENS GAS DEPARTMENT
Address P. O. Box 4168, Charleston, W. Va.
Farm Koonce-Zimmerman Acres 650

Location (waters) _____
Well No. 2 (Serial No. 599) Elev. 652.53
District Lincoln County Wayne

The surface of tract is owned in fee by _____
Address _____

Mineral rights are owned by First Natl. Bank, Adm. W. C. Moore
Charles Koonce Estate
Address Sharon, Penna.

Drilling commenced June 6, 1963
Drilling completed July 29, 1963

Date Shot _____ From _____ To _____
With _____

Open Flow _____ /10ths Water in _____ Inch
_____ /10ths Merc. in _____ Inch

Volume _____ Cu. Ft.
Rock Pressure _____ lbs. _____ hrs.

Oil _____ bbls., 1st 24 hrs.
WELL ACIDIZED _____

WELL FRACTURED See Below

Casing and Tubing	Used in Drilling	Left in Well	Packers
Size			Kind of Packer _____
16			
13			
10			Size of _____
8 1/4			
6 3/8			Depth set _____
5-3/16 4-1/2" 1257'	1257'	1257'	
3-1/2 2594' 2"	Pulled		Perf. top _____
X 1" 1244'	1244'	1244'	Perf. bottom _____
Liners Used			Perf. top _____
			Perf. bottom _____

CASING CEMENTED _____ SIZE 4-1/2 No. Ft. 4 Date 6-24-63

COAL WAS ENCOUNTERED AT _____ FEET _____ INCHES
_____ FEET _____ INCHES
_____ FEET _____ INCHES

RESULT AFTER TREATMENT Big Injun Sand 411 MCF

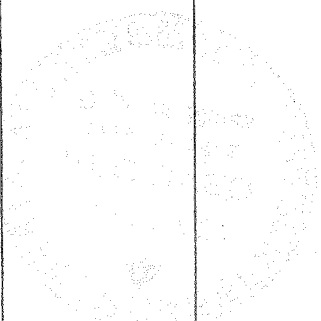
ROCK PRESSURE AFTER TREATMENT 380# in 12 Days

Fresh Water _____ Feet Salt Water _____ Feet

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth	Remarks
As completed 5/8/41:							
						6- 6-63	
						Pulled 2594' 2" of 3-1/2" tubing.	
						Test 5:20 P.M.	13.6 M
						6-10-63	
						Rock bridge	2250 - 2200
						Cement	2200 - 2190
						6-11-63	
						Rock bridge	1320 - 1270
						Cement	1270 - 1260
						6-18-63	
						Schlumberger ran gamma ray and temperature logs.	
						6-24-63	
						Installed 4-1/2" casing at 1257 ft. on a shoe.	
						Dowell cemented the 4-1/2" casing with 200 gals. Cement and 22 bags of Marquette cement. SIM to top of float collar 1247 ft.	
						6-27-63	
						Schlumberger perforated 4-1/2" casing 1222 - 1226 using 3-5/8" capsul jets. Perforated a total of 12 holes.	
						Test 5 P.M.	574 cu. ft.
						7-10-63	
						Fracced well and swabbed water 15 hrs. Dowell fracced Big Injun Sand using 30,000 lbs. 20-40 sand, 250 gal. mud acid, and 637 bbls. water.	



Formation	Color	Hard or Soft	Top 15	Bottom	Oil, Gas or Water	Depth Found	Remarks
					7-13-63 6 A.M., 18 gal. water, 1 qt. sand, 417 M		
					7-26-63 4:45 P.M., 10 gal. water, 1 pt. sand, 411 M		
					7-29-63 Installed 1" siphon at 1244 ft. with 6 ft. of perforations. Siphon set 6 ft. off bottom of well.		



Date February 7, 1964

APPROVED OWENS, LIBBEY-OWENS GAS DEPARTMENT, Owner

By C. H. Smith
A. H. Smith, Mgr. (Title) Land, Engrg. & Geol.