

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

G. White Toledo, Ohio  
File No. { Washington \_\_\_\_\_  
District \_\_\_\_\_

Pumping test, Toledo City Well 31 July 1961 - 1 Aug 61 page 1 of 4 pages

Time	Elap time	W/L	D/D	Rate Gpm										
7:00	0	156.0	0											
:15	15	345.00	189	1300										
:30	30	350.00	194.00											
8:00	60	350.00	197.00	1200+										
:30	90	349.00	193.00	1200										
9:00	120	357.25	195.25	1200										
:30	150	352.85	196.85	1200										
10:00	180	354.00	198.00	1200										
:30	210	355.15	199.15	1200										
11:00	240	356.10	200.90	1200										
:30	270	357.60	201.60	1200										
12:00	300	358.00	202.00											
:30	330	357.50	201.50											
1:00	360	358.60	202.60	1200										
:30	390	358.60	202.60											
2:00	420	358.60	202.60	1200										
:30	450	358.80	202.80	1200										
3:00	480	358.60	202.60											
:30	510	359.30	203.70	1200										
4:00	540	360.00	204.00											
:30	570	360.00	204.00											
5:00	600	362.30	206.30											
:30	630	364.35	208.35	1200										
6:00	660	365.50	209.50											
:30	690	367.70	211.70	1200										
7:00	720	367.90	211.90	1200										
8:00	780	368.00	212.00	1200										
9:00	840	369.00	213.00											
10:00	900	370.00	214.00	1200										
11:00	960	370.15	214.15	1200										
12:00	1020	371.35	215.35	1200										
1:00	1080	371.70	215.70											

A.M.  
31 July  
61

N.  
P.M.

M.  
1 Aug 61

SWL - pump started 7:00

pumping sand

pumping sand

sand

sand - water clearing

water clearing

water getting clear

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Pumping test, Toledo City Well, 31 July - 1 Aug. 61, page 2 of 4 pages

Time	Elap. Time	W/h	D/O	Rate Sp.m.									
A.M.	2:00	1140	372.30	216.30	1200								
	3:00	1200	371.75	215.75									
	4:00	1260	372.70	216.70	1200								
	5:00	1320	372.60	216.60									
	6:00	1380	372.80	216.80	1200								
	7:00	1440	373.38	217.38									
	8:00	1500	372.90	216.90									
				Recov.									
	8:05	5	250.00										
	:10	10	237.92										
	:15	15	230.02										
	:20	20	227.40										
	:25	25	224.00										
	:30	30	221.85										
	:35	35	218.52										
	:40	40	216.85										
	:45	45	215.00										
	:50	50	213.59										
	:55	55	212.05										
	9:00	60	210.42										
	10:05	125	199.50										
	11:58	238	189.35										
	12:00	0		D/O									
N.													
P.M.	:03	3	212.45	53.10									
	:04	4											
	:07	7	227.40	38.85									
	:09	9	227.80	38.35	508								
	:11	11	227.77	38.38									
	:15	15	228.68	39.39									
	:20	20	229.58	40.23									
	:25	25	232.50	43.15	508								
	:30	30	233.20	43.95									

water clear - some sand

water clear - very little sand

water sample taken 7:50 - pump off 8:00

pump started

water milky - sand

rate cut to 508 GPM

water clearing

water clear

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*Pumping Test, Toledo City Well, 31 July - 1 Aug. 61., page 3 of 4 pages*

Time	Elop Time	W/L	D/O	Rate G.P.M.										
12:35	35	234.53	45.18	508										
:40	40	234.30	44.95	508										
:45	45	234.78	45.43	508										
:50	50	235.10	45.75											
:55	55	235.14	45.79											
1:00	60	236.00	46.65											
:10	70	236.43	47.08	508										
:20	80	236.67	47.32											
:30	90	236.87	47.52	508										
:45	105	237.70	48.35											
2:00	120	237.47	48.12	500										
:15	135	237.97	48.62	508										
:30	150	238.25	48.90											
3:00	180	238.25	48.90	508										
:30	210	238.17	48.82											
:32	0		Recov											
:34	2	205.80	32.37											
:35	3	205.00	33.17											
:36	4	204.57	33.60											
:37	5	203.82	34.35											
:38	6	203.14	35.03											
:39	7	202.43	35.74											
:40	8	201.81	36.26											
:41	9	201.22	36.85											
:42	10	200.63	37.44											
:43	11	200.16	38.01											
:44	12	199.73	38.44											
:45	13	199.30	38.87											
:46	14	198.90	39.27											
:48	16	198.10	40.07											
:50	18	197.29	40.88											
:52	20	196.78	41.39											

P.M.  
1 Aug.

pump off



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TOLEDO (TAMA COUNTY) CITY JORDAN WELL PUMPING TEST JULY 19, 1961

TIME	ELAPSED TIME (MIN)	WATER LEVEL	DRAWN DOWN	PUMPING RATE	
8:00	0	163.0	0	0	START PUMPING
	3	363.00	200.00		AIR LINE MEAS. ✓
	5	357.00	194.00	460	" WEIR MEAS. " ✓
	8	357.10	194.10		PUMP OFF
	11				" ON
	12	295.00	132.00		AIR LINE MEAS.
	13	320.00	157.00		" " "
	15	345.50	182.50	450	WEIR MEAS.
	18	355.00	192.00		
	21	358.90	195.90		
	23	357.00	194.00		AIR LINE MEAS.
	24	360.85	197.85		
	27	361.05	198.05		
	30	356.80	193.80		
	35	354.20	191.20		
	40	353.30	190.30		
	45	351.45	188.45		
	50	349.80	186.80		
9:00	60	347.00	184.00	475	WEIR MEAS. 3 5/8 INCHES
9:15	75	342.55	179.55		
9:30	90	340.25	177.25	475	WEIR MEAS.
9:45	105	338.10	175.10		
10:00	120	335.60	172.60		
10:45	165	329.60	166.60		63° TEMP
10:50	170	353.10	190.10	550	WEIR MEAS.
11:00	180	355.85	192.85		
11:30	210	354.95	191.95		
NOON	240	345.85	182.85		
12:30	270	340.85	177.85		
1:00	300	337.20	174.20		
1:05	305				PUMP OFF

ALL MEASUREMENTS BY ELECTRIC LINE EXCEPT WHERE NOTED OTHERWISE

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TOLEDO (TAMA COUNTY) CITY JORDAN WELL PUMPING TEST

JULY 19, 1961

TIME	ELAPSED TIME (MIN)	WATER LEVEL	DRAWN DOWN	PUMPING RATE				
1:15	315				PUMP ON ORIFICE MEAS. ✓			
1:20	320	368.70	195.70	900				
1:25	325	373.80	210.80					
1:30	330	379.55	216.55		PUMP RPM 1700			
1:35	335	380.16	217.15					
1:40	340	379.10	216.10					
1:45	345	378.20	215.20		TEMP 64° ORIFICE MEAS			
1:50	350	377.25	214.25					
2:00	360	373.00	210.00					
2:20	380	367.50	204.50		TEMP 64° ORIFICE MEAS			
2:30	390	364.10	201.10	900+				
3:00	420	358.40	195.40					