

**RESULTS OF PUMPING TEST**

**ON**

**DEWITT CITY WELL NO. 5**

**DeWitt, Iowa**

**July 9, 10, 1948**

**NAME: DeWitt City Well No. 5.**

**LOCATION: NW $\frac{1}{4}$  SE $\frac{1}{4}$  SE $\frac{1}{4}$  Sec. 18, T. 81 N., R. 4 E.**

**ELEVATION: Est. 690 feet above sea level. (696' Land surface - K.E.A. 1-17-49)**

**OWNER: City of DeWitt, Clinton County.**

**CONTRACTOR: Thorpe Well Company, Des Moines.**

**DRILLERS: Bergeson and Lyon.**

**DRILLING DATES: April to July 10, 1948.**

**TOTAL DEPTH: 1421 feet below ground level.**

**CASING AND HOLE DATA: 20-inch casing set at 40 feet; 12-inch casing cemented in 19-inch hole from 505 feet to ground level. Open 12-inch hole from 505 feet to 1270 feet. 10-inch open hole to 1421 feet.**

**TEST PUMP: Deep well turbine set at 236 feet and driven by belt from gasoline engine. Bowl assembly was 13 stage, 8-inch diameter.**

**WATER LEVEL MEASUREMENTS: Referred to top of 12-inch casing 1.5 feet above ground level.**

**DISCHARGE MEASUREMENTS: Discharge measurements made with 36-inch rectangular weir with 6-inch contractions. Edges of weir were rough; velocity of approach of approximately .25 ft./sec. At end of test, crest of weir was found to be 1/4-inch below zero of original measuring point.**

**TEMPERATURE MEASUREMENTS: Temperature measurements made at end of 24 feet discharge pipe.**

**Observations made by C. W. Lane and K. E. Anderson of the Geological Survey.**

## RESULTS OF PUMPING TEST AT DEWITT CITY WELL NO. 5

- JULY 9-10, 1948

TIME	DEPTH TO WATER WELL 5	INCHES ABOVE WEIR	G.P.M.	TEMP.	REMARKS
July 9					
2:00 pm					Started pump.
2:15	164.5		360		
2:30	168.5		360		
2:45	176.5		390		
3:00	178.5		390		
3:30	178.5		390		
4:00	179.8		390		
5:22	181.2		360		
5:45	181.11				Water almost clear, slightly cloudy.
6:00	181.6	2½	360		
7:15	182.45	2½	360		
7:30	182.9			64	
7:45	182.6				
8:00	182.9				
8:15	182.7	2½	360		Water cloudy gray.
8:30	183.2				
8:45	183.2				
9:00	183.2	2½	360		Water milky.
9:30	183.7				
10:00	184.1	2½	360		
10:30	184.35				
11:00	184.25	2½	360		Water milky.
11:30	184.34				
12:00	184.6	2½	360		
July 10					
1:00 am	184.6	2½	360		
2:00	184.3		360		Water milky.
3:00	181.7		360+		
4:00	182.0		360+		
5:00	181.0		360+		
6:00	181.0		360		
7:00	181.0				
7:30	182.1				
8:00	181.3				
8:30	182.0				
9:00	182.1	2½	360		Water clearing.
9:30	181.7				
10:00	181.5	2½	360		
10:30	180.8				
11:00	180.8		360		
11:40	182.0				
12:00	181.9		360		Water almost clear.
12:30 pm	182.2				
1:00	181.3				
1:02					Pumping rate increased.
1:08	181.3	2½	422		
1:15	182.1				

TIME	DEPTH TO WATER WELL 5	INCHES ABOVE WEIR	G.P.M.	TEMP.	REMARKS
July 10					
1:30 pm	203.8				
1:45	204.1				
2:00	204.5	2 $\frac{1}{2}$	422	64	Water milky.
2:15	204.65				
2:30	204.8		422		
2:45	204.95				
3:00	204.95		390		Water milky.
3:15	205.1				
3:30	205.5		390		
3:45	205.5				
4:00	205.7		390		Pumping rate decreased.
4:06	180.7		300		
4:19	181.8				
4:37	182.0				Water almost clear, sample taken.
5:00	181.8				
5:02					Pump shut down.
5:06	151.1				
5:15	151.3				
5:30	150.85				Checked weir gage, reading 1/4-inch to low.
5:45	150.55				
6:00	150.35				