

IOWA GEOLOGICAL SURVEY  
In Cooperation with U. S. Geological Survey

W 8494

RECORD OF WELL



Location:

Town: TOLEDO (NE) (SW) : County TAMA

SE SW sec. 15 T. 83 N., R. 15 W. Twp.

Well name and number \_\_\_\_\_

Owner CITY OF TOLEDO (1956) Address TAMA

Tenant \_\_\_\_\_ Address \_\_\_\_\_

Contractor LEONARD SHILHANEK Address \_\_\_\_\_

Drillers \_\_\_\_\_

Drilling dates MARCH 12-16, 1956

Well data:

Altitudes: Drilling curb \_\_\_\_\_ feet; Land surface \_\_\_\_\_ feet

Determined by \_\_\_\_\_

Topographic position \_\_\_\_\_

Total depth: Reported 145 feet, Measured \_\_\_\_\_ feet

Drilling method \_\_\_\_\_

Hole and casing data \_\_\_\_\_

Original depth to water 41 <sup>above</sup> ft. below \_\_\_\_\_ Date \_\_\_\_\_

Source of data \_\_\_\_\_

Sources of water: Principal 90' AND 130'-140'

Others \_\_\_\_\_

Production Data

Date \_\_\_\_\_  
 Static water level \_\_\_\_\_  
 Measuring point \_\_\_\_\_  
 Pumping water level \_\_\_\_\_  
 Yield (g. p. m.) \_\_\_\_\_  
 Duration of pumping \_\_\_\_\_  
 Specific capacity \_\_\_\_\_

Pump Data

Type pump \_\_\_\_\_ Column diameter and length \_\_\_\_\_  
 Cylinder or bowls diameter and length \_\_\_\_\_  
 Suction pipe \_\_\_\_\_ Airline \_\_\_\_\_  
 Power \_\_\_\_\_ Production \_\_\_\_\_ g. p. m. for \_\_\_\_\_ hours per day  
 Use of water \_\_\_\_\_

Dissolved constituents and properties (in parts per million except as indicated)

Date sampled \_\_\_\_\_  
 Sampled by \_\_\_\_\_  
 Silica (SiO<sub>2</sub>) \_\_\_\_\_  
 Iron (Fe) \_\_\_\_\_  
 Manganese (Mn) \_\_\_\_\_  
 Calcium (Ca) \_\_\_\_\_  
 Magnesium (Mg) \_\_\_\_\_  
 Potassium (K) \_\_\_\_\_  
 Sodium (Na) \_\_\_\_\_  
 Carbonate (CO<sub>3</sub>) \_\_\_\_\_  
 Bicarbonate (HCO<sub>3</sub>) \_\_\_\_\_  
 Sulfate (SO<sub>4</sub>) \_\_\_\_\_  
 Chloride (Cl) \_\_\_\_\_  
 Fluoride (F) \_\_\_\_\_  
 Nitrate (NO<sub>3</sub>) \_\_\_\_\_  
 Dissolved solids \_\_\_\_\_  
 Hardness (as CaCO<sub>3</sub>) \_\_\_\_\_  
     Total \_\_\_\_\_  
     Grains per gallon \_\_\_\_\_  
     Noncarbonate \_\_\_\_\_  
 Alkalinity (as CaCO<sub>3</sub>) \_\_\_\_\_  
 pH \_\_\_\_\_  
 Specific conductance \_\_\_\_\_  
     (micromhos at 25°C) \_\_\_\_\_  
 Temperature (°F) \_\_\_\_\_  
 Analysis No. \_\_\_\_\_

Laboratory Data

Well No. **W 2494** Sample range **0-145** No. of samples **34**  
 No. of dupls. and cond. **20** Washed range **109 1/2 - 145**  
 Samples prepared by **R. Valentine** Date **7/18/57**  
 Logged by **D. Van Eck** Date **Sept 16, 1957**  
 Correlations by \_\_\_\_\_ Date \_\_\_\_\_

IOWA GEOLOGICAL SURVEY  
Iowa City, Iowa

Well Log Record

Well name and number \_\_\_\_\_ Town Toledo County Tama

Owner of well City of Toledo Address \_\_\_\_\_

Tenant \_\_\_\_\_ Address \_\_\_\_\_

Location SE SW sec. 15 T. B3 N., R. 15 W. \_\_\_\_\_ Twp.  
present final

Curb elevation \_\_\_\_\_ ft. depth \_\_\_\_\_ ft. depth 145 ft.

Static level: (Depth to water below curb) 41 ft. level \_\_\_\_\_ ft. at \_\_\_\_\_ g. m.  
above-pumping

Contractor Leonard Shilhanek Date drilled MAR. 12-16, 1956

| Description* | Feet  |      |     | Description* | Feet  |      |    |
|--------------|-------|------|-----|--------------|-------|------|----|
|              | Thick | From | To  |              | Thick | From | To |
| Yel. Clay    | 30    | 0    | 30  |              |       |      |    |
| Blue Clay    | 79    | 30   | 109 |              |       |      |    |
| <u>R</u>     | 36    | 109  | 145 |              |       |      |    |
|              |       |      |     |              |       |      |    |
|              |       |      |     |              |       |      |    |
|              |       |      |     |              |       |      |    |
|              |       |      |     |              |       |      |    |
|              |       |      |     |              |       |      |    |

\*Abbreviate descriptions; use one line for each formation

Remarks on water zones and casings Top vein, 50 gpm at 90 feet  
40 grain hardness, 113'-117' gr R w/sandstone  
Bottom vein - 16 grain hardness - 130-140 Sandstone & Sh

Temperature: Air \_\_\_\_\_ °F., Water \_\_\_\_\_ °F. at P. M., \_\_\_\_\_ 19  
A. M.

Record obtained from L. Shilhanek Recorded by O. Van Eck





UNITED STATES DEPARTMENT OF THE INTERIOR  
 Geological Survey  
 Water Resources Division

W 8494  
 083 15W 15C DD  
 CITY OF TOLEDO

Water Quality  
 (ppm)

Card Q

State: IOWA 19 County: TAMA 86 Town: TOLEDO

Well No. 415938N 0923500 Seq. No. 2 Date 031358

Sampling Depth 145 Type 1 Kx10<sup>e</sup> 1370 pH 75 Temp. °F    

SiO<sub>2</sub> 58 Ca   47 Mg 26 Na 224 K 74

HCO<sub>3</sub> 254 CO<sub>3</sub> 0 SO<sub>4</sub> 498 Cl    60 Source No. 3 Q

Card R

Duplicate Columns 1-25 from Card Q

F 13 NO<sub>3</sub> 12 PO<sub>4</sub>     B     Al     Fe 014

Mn 005 Cu     Pb     Zn    

Determined    978 Calc.        Ca, Mg 224 Hardness Non-Carb.    16

Color    No. R

Card S

Duplicate Columns 1-25 from Card Q

Br     I     Alk. as CaCO<sub>3</sub> 208 Free CO<sub>2</sub>     SAR    

RSC     ABS        

Alpha (pc/l)     Beta (pc/l)     Ra (pc/l)     U (ug/l)    

No. S  
 80

Recorded by: MACGOWAN

Punched by: MACGOWAN Date: 6/72

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