

078-01W-06B CCC

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

W-0587

RECORD OF WELL

Location:

Town: Wilton Junction (N E)
 (S W) : County Muscatine
SW/4 NW sec. 6 T 78 N., R. 1 W. Wilton Twp.

Well name and number City Well #31Owner City of Wilton Junction Address _____

Tenant _____ Address _____

Contractor D.E. Edwards Address West Branch

Drillers _____

Drilling dates July 1931

Well data:

Elevations: Drilling curb 714 feet; Land surface _____ feetDetermined by A.C. TesterTopographic position UplandTotal depth: Reported 347 * feet, Measured _____ feetFiled backed to 306'Drilling method CableHole and casing data 2 7/8" of 8" pipe

Original depth to water _____ ft. above _____ ft. below _____ Date _____

Original elevation of water level _____ ft.; Source of data _____

Sources of water: Principal Silurian; Others _____

Production data:

Date

Feb. 10, 1941

Static depth to water

61.5

Measuring point

cut

Pumping level

at

220

g.p.m.

Specific capacity

g.p.m. per ft. drawdown;

Temperature

53 1/2

°F.

Pump data:

Type pump

Turbine

Column Dia.

Length

130

Cylinder or bowls: Dia.

Length

Suction pipe

Power

Electricity

Airline

Estimated rate of production:

g.p.m. for

hrs. a day

Use of water

Municipal

WATER ANALYSES (in parts per million)

Date samples

Feb. 10, 1941

Sampled by

H. G. Hershey

Total solids

299

Insoluble matter

18.5

Alkalinity (Meo)

320.0

Alkalinity (Phm)

0.0

pH

7.1Fe₂O₃ + Mn₂O₃ + Al₂O₃4.0

Alkali as sodium

17.1

Calcium

84.3

Magnesium

28.0

Iron (unfiltered)

0.7

Manganese

Trace

Nitrate

0.00

Fluoride

1.0

Chloride

4.0

Sulfate

13.0

Bicarbonate

390.4

Hardness (ppm)

327

Hardness (gpg)

19.1

Remarks

Laboratory data:

Sample storage location

Sample range

0-350

No. spls.

65

No. dupls. & cond.

67 Good.

Spls. prepared by

Washed range

by

Driller's log and cond.

Insoluble residues:

Prepared by

Studied by

Strip log

Microscopic study

Self & Davis

strip log

Self & Davis

Gen. log

Correl. by

Self & Davis

IOWA GEOLOGICAL SURVEY
Water Analysis Report
FINAL

County Muscatine Date Sampled August 25, 1934
Town Wilton Junction Sampled by Mr. Pullan
Location of Well SW $\frac{1}{4}$, $\frac{1}{4}$, Sec. 6, T. 78 N., R. 1 W.

Owner City of Wilton Junction Well No. 2 Drlg. : T.D. 1502 ft.
Type of Drilled Static 29 ft. Curb Elevation 676 ft.
Well Level
Producing Formation(s) Cambrian (Jordan Ss.) Depth range 1420-1502 ft.
Remarks on Condition of Well, Casing or Formations 12" casing 0-249';
one length 10" pipe at 240-260'. No other casing.

Constituents	Parts Per Million	Constituents	Parts Per Million
Total Solids	<u>342.0</u>	Magnesium (Mg)	<u>25.0</u>
Dissolved Solids	<u>--</u>	Iron (Fe) (unfiltered) ..	<u>4.0</u>
Insoluble Matter	<u>22.8</u>	(filtered) ..	<u>0.3</u>
pH	<u>7.2</u>	Manganese (Mn)	<u>0.0</u>
Alkalinity (MeO)	<u>302.0</u>	Aluminum (Al)	<u>0.0</u>
Alkalinity (Phn)	<u>0.0</u>	Fluorine (F)	<u>0.0</u>
R ₂ O ₃	<u>5.6</u>	Chlorine (Cl)	<u>10.0</u>
Nitrogen as Ammonia (NH ₄) ..	<u>--</u>	Sulphate (SO ₄)	<u>14.8</u>
Nitrogen as Nitrite (NO ₂) ..	<u>0.0</u>	Bicarbonate (HCO ₃) ...	<u>368.4</u>
Nitrogen as Nitrate (NO ₃) ..	<u>0.0</u>	Phosphate (PO ₄)	<u>0.04</u>
Alkalies as Sodium (Na) ..	<u>20.4</u>	Borate (BO ₃)	<u>7.0</u>
Calcium (Ca)	<u>76.0</u>	Calculated Hardness ..	<u>300.0</u>
		Hardness Grains	
		per U. S. Gallon	<u>17.6</u>
Temperature: Water ____ °F, Air ____ °F, Measured at _____			

Remarks: _____

Analysis by State Water Analysis Laboratory, Prof. J. J. Hinman, Jr.,
Director, Iowa City, Iowa, Lab. No. 87,447, Date Sept. 6, 1934
Sent to: Mr. F. H. Miller, Wilton Junction.
Date: April 19, 1937.

IOWA GEOLOGICAL SURVEY
Water Analysis Report
FINAL

County Muscataine Date Sampled April 7, 1937
 Town Wilton Junction Sampled by A. C. Tester
 Location of Well SW $\frac{1}{4}$, $\frac{1}{4}$, Sec. 6, T. 78 N., R 1 W.

Owner City of Wilton Junction Well No. 2 : T.D. 1502 ft.

Type of Drilled Static 29 ft. Curb Elevation 676 ft.
Well Level

Producing Formation(s) Cambrian (Jordan Ss.) Depth range 1420-1502 ft.

Remarks on Condition of Well, Casing or Formations 12" casing 0-249';
one length 10" pipe at 240-260'[±]. No other casing. Drawdown 32'
to 61' pumping at 190 g.p.m. in 15 mins. Tests on drawdown and
pumping levels to be made later.

Constituents	Parts Per Million	Constituents	Parts Per Million
Total Solids	<u>336.0</u>	Magnesium (Mg)	<u>25.6</u>
Dissolved Solids	<u>---</u>	Iron(Fe) (~~filtered~~) (unfiltered) ..	<u>1.6</u>
Insoluble Matter	<u>22.8</u>	Manganese (Mn)	<u>0.10</u>
pH	<u>7.1</u>	Aluminum (Al)	<u>---</u>
Alkalinity (MeO)	<u>296.0</u>	Fluorine (F)	<u>1.0</u>
Alkalinity (Phn)	<u>0.0</u>	Chlorine (Cl)	<u>12.0</u>
R ₂ O ₃	<u>8.2</u>	Sulphate (SO ₄)	<u>15.7</u>
Nitrogen as Ammonia(NH ₄)	<u>---</u>	Bicarbonate (HCO ₃) ...	<u>361.1</u>
Nitrogen as Nitrite(NO ₂)	<u>0.170</u>	Phosphate (PO ₄)	<u>0.00</u>
Nitrogen as Nitrate(NO ₃)	<u>0.30</u>	Borate (BO ₃)	<u>2.0</u>
Alkalies as Sodium(Na) ..	<u>11.2</u>	Calculated Hardness ..	<u>325.0</u>
Calcium (Ca)	<u>86.9</u>	Hardness Grains per U. S. Gallon	<u>19.1</u>

Temperature: Water 53 °F, Air 48 °F, Measured at valve in discharge pipe
at pump.

Remarks:

Analysis by State Water Analysis Laboratory, Prof. J. J. Hinman, Jr.,
Director, Iowa City, Iowa. Lab.No. 111,934, Date April 14, 1937
Sent to:
Date: