

7 1/2 Sumner Quad

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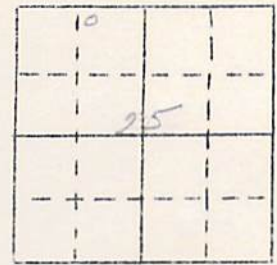
IOWA GEOLOGICAL SURVEY

W-0024

93N-11W-25 BBAE Cooperation with U. S. Geological Survey

1980 field located by D. Karsten

RECORD OF WELL



Location:

Town: Sumner (N E) (S W); County Bremmer

NW-NE-NW sec. 25 T. 93 N., R. 11 W. Sumner Twp.

Well name and number City Well

Owner _____ Address _____

Tenant _____ Address _____

Contractor J.P. Miller & Co. Address Chicago

Drillers _____

Drilling dates Comp. 1902

Well data:

Elevations: Drilling curb 1056 feet; Land surface _____ feet

Determined by Anemoid

Topographic position _____

Total depth: Reported _____ feet, Measured 1770 feet

Drilling method _____

Hole and casing data 6" casing 0-730'

(Give amount, size, kind, and depth of all casing; type and position of seals and packers; cementing; how finished--perforated pipe, screen, gravel pack, open hole, etc.)

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

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

Sources of water: Principal pond; Others _____

Production data: Date _____
 Static depth to water 176.22' Measuring point M.P. 1.8' above land surface
 Pumping level 176.13' at 150 g.p.m.

Specific capacity 7.5 g.p.m. per ft. drawdown; Temperature _____ °F.

Pump data; Type pump Turbine Column Dia. 4" I.D. Length 240'
 20 Cylinder or bowls: Dia. 4 Length 12'6" Suction pipe _____
 Power Electric Airline _____
 Estimated rate of production: _____ g.p.m. for _____ hrs. a day
 Use of water Municipal

WATER ANALYSES (in parts per million)

Date sampled	<u>Sept 20, 34</u>	_____	_____	_____
Sampled by	_____	_____	_____	_____
Total solids	<u>259</u>	_____	_____	_____
Insoluble matter	_____	_____	_____	_____
Alkalinity (Meo)	_____	_____	_____	_____
Alkalinity (Phn)	_____	_____	_____	_____
pH	_____	_____	_____	_____
Fe ₂ O ₃ + Mn ₂ O ₃ + Al ₂ O ₃	_____	_____	_____	_____
Alkali as sodium	<u>26.6</u>	_____	_____	_____
Calcium	<u>48.2</u>	_____	_____	_____
Magnesium	<u>22.2</u>	_____	_____	_____
Iron (unfiltered)	<u>.1</u>	_____	_____	_____
Manganese	<u>.02</u>	_____	_____	_____
Nitrate	<u>.09</u>	_____	_____	_____
Fluoride	<u>1.0</u>	_____	_____	_____
Chloride	<u>3.0</u>	_____	_____	_____
Sulfate	<u>36.2</u>	_____	_____	_____
Bicarbonate	<u>292.8</u>	_____	_____	_____
Hardness (ppm)	<u>211</u>	_____	_____	_____
Hardness (gpg)	_____	_____	_____	_____
Remarks	_____	_____	_____	_____

Laboratory data: Sample storage location _____
 Sample range 0-1740 No. spls. _____ No. dupls. & cond. _____
 Spls. prepared by _____ Washed range _____ by _____
 Driller's log and cond. _____
 Insoluble residues: Prepared by _____ Studied by _____ Strip log _____
 Microscopic study 0-1740 strip log ✓
 Gen. log _____ Correl. by _____

STATE HYGIENIC LABORATORY, DES MOINES BRANCH
WATER LABORATORY DIVISION IOWA GEOLOGICAL SURVEY
MINERAL ANALYSIS

LAB. NO. 2443
MINERAL NO. 3675
4 October 1962

5-1532

TOWN Sumner COUNTY Bremer
OWNER OF SUPPLY Sumner
COLLECTOR'S NAME E G Finch
DATE COLLECTED 14 June 1962 DATE RECEIVED 18 June 1962
REPORT TO: NAME Division of Public Health Engineering
ADDRESS State Department of Health

FIELD DATA

SOURCE: WELL NAME, NUMBER, POINT OF COLLECTION, DEPTH, CONSTRUCTION DATE, ETC.
Well 1, 1760 ft. 1902
WELL PUMPED 18 HRS. AT 150 GPM. DATE OF PREVIOUS SAMPLE
WAS SAMPLE FREE OF TURBIDITY WHEN COLLECTED Not Stated
TEMPERATURE °C 52 F ALKALINITY (ppm CaCO₃) P T PH
IS A POLYPHOSPHATE BEING USED?

LABORATORY ANALYSIS
(PARTS PER MILLION)

SPECIFIC CONDUCTANCE K AT 25°C 49.9 x 10³ TURBIDITY
DISSOLVED SOLIDS 300 SOLUBLE IRON (Fe) 0.08
TOTAL SOLIDS 300 SILICA (SiO₂) 6.4 TOTAL IRON (Fe) 0.08
ALKALINITY (ppm CaCO₃) P None T 224 pH 7.8 DATE 18 June 1962

POSITIVE IONS

K+ 7.1
Na+ 15.1
Ca++ 54.0
Mg++ 23.8
Mn++ < 0.05
Al+++

NEGATIVE IONS

NO₃- as N < 0.1
F- 0.7
Cl- 1
SO₄-- 50.4
HCO₃- 273
CO₃-- None

HARDNESS AS CaCO₃ 233 ppm 13.6 gpg
Clear on receipt in lab.

ANALYST Pierson

R. L. MORRIS
PRINCIPAL CHEMIST