

7 1/2' Sumner Quad
425045-0920554-02
93N-11W-25 BBAC
1980 field located by D. Karsten

IOWA GEOLOGICAL SURVEY
In Cooperation with U. S. Geological Survey
RECORD OF WELL

W 6988

Location:

Town: Sumner (NE)
(SW) : County Bremet
NW NE NW sec. 25 T. 93 N., R. 11 W. Twp.

Well name and number _____

Owner Town of Sumner Well #3 Address Sumner Town

Tenant _____ Address _____

Contractor Geo. Shawver Address Fredricksburg, Iowa

Drillers _____

Drilling dates Oct - 1954 to MAY 1955

Well data:

Altitudes: Drilling curb _____ feet; Land surface 1052' EST. feet

Determined by _____

Topographic position _____

Total depth: Reported 1120' feet, Measured _____ feet

Drilling method cable tool - LOST TOOLS AT 1120' - COULD NOT RECOVER

Hole and casing data

16" To 140' ; 14" From 130'-235' ; OPEN 235'-295'
10" From 295'-410' ; OPEN 410'-620' ; 8" From 620'-750'
OPEN 750' TO TD

Original depth to water 40' above
ft. below _____ Date _____

Source of data _____

Sources of water: Principal _____

Others _____

Production Data

Date MAY 21, 1955
 Static water level 40'
 Measuring point _____
 Pumping water level 252'
 Yield (g. p. m.) 150
 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 (SiO₂) _____
 Iron (Fe) _____
 Manganese (Mn) _____
 Calcium (Ca) _____
 Magnesium (Mg) _____
 Potassium (K) _____
 Sodium (Na) _____
 Carbonate (CO₃) _____
 Bicarbonate (HCO₃) _____
 Sulfate (SO₄) _____
 Chloride (Cl) _____
 Fluoride (F) _____
 Nitrate (NO₃) _____
 Dissolved solids _____
 Hardness (as CaCO₃) _____
 Total _____
 Grains per gallon _____
 Noncarbonate _____
 Alkalinity (as CaCO₃) _____
 pH _____
 Specific conductance _____
 (micromhos at 25°C) _____
 Temperature (°F) _____
 Analysis No. _____

Laboratory Data EG 5-3 + EG 5-4

Well No. 6938 Sample range 145-940 No. of samples 125
 No. of dupls. and cond. 125 Good Washed range 145-940
 Samples prepared by Cahill, Cox + Morgan Date 12/17/54
 Logged by NORTHUP Date JAN. 1955
 Correlations by NORTHUP Date JAN. 1955

UNITED STATES DEPARTMENT OF THE INTERIOR
 Geological Survey
 Water Resources Division

W-6933
 09311W25BAB
 SUMNER TOWN WELL #3
 (1955)

Water Quality
 (ppm)

Card Q

State: IOWA 1 9 County: BREMER 0 9 Town: SUMNER

Well No. 4 2 5 0 4 8 N 0 9 2 0 5 3 7 Seq. No. 2 Date 0 5 2 1 5 5

Sampling Depth Type Kx10⁶ 5 2 1 pH 8.2 Temp. °F

SiO₂ Ca 4 3 Mg 2 0 Na 4 8 K 8.2

HCO₃ 2 8 4 CO₃ 1 9 SO₄ 2 8 Cl 5 0 Source No. 3 Q

Card R

Duplicate Columns 1-25 from Card Q

F 2 0 NO₃ 0 PO₄ B Al Fe 6.2

Mn 0 Cu Pb Zn

Determined 2 8 9 Solids Ca, Mg 1 9 2 Hardness Non-Carb.

Color No. R

Card S

Duplicate Columns 1-25 from Card Q

Br I Alk. as CaCO₃ 2 6 5 Free CO₂ SAR

RSC ABS

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

No. S
 80

Recorded by: MACGOWAN

Punched by: Mae Gowans Date: 8-25-70

Published: _____

UNITED STATES DEPARTMENT OF THE INTERIOR
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W-6933
 093 11W 25 BAB
 SUMNER TOWN WELL #3
 (1955)

Water Quality
 (ppm)

Card Q

State: IOWA 19 County: BREMER 09 Town: SUMNER

Well No. 425048N 0920537 Seq. No. 2 Date 011458

Sampling Depth Type Kx10⁶ 542 pH 77 Temp. °F

SiO₂ 66 Ca 46 Mg 23 Na 34 K 87

HCO₃ 315 CO₃ 0 SO₄ 30 Cl 05 Source No. 3 Q

Card R

Duplicate Columns 1-25 from Card Q

F 16 NO₃ 27 PO₄ B Al Fe 010

Mn 005 Cu Pb Zn

Determined 315 Calc. Ca, Mg 210 Hardness Non-Carb.

Color No. R

Card S

Duplicate Columns 1-25 from Card Q

Br I Alk. as CaCO₃ 258 Free CO₂ SAR

RSC ABS

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

No. S
 80

Recorded by: MACGOWAN

Punched by: Mac Gowan Date: 8-25-72

Published: _____

UNITED STATES DEPARTMENT OF THE INTERIOR
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 Water Resources Division

W- 6933
 093 11W 25 BAB
 SUMNER TOWN WELL #3(1955)

Water Quality
 (ppm)

Card Q

State: IOWA 1 9 County: BREMER 0 9 Town: SUMNER

Well No. 4 2 5 0 4 8 N 0 9 2 0 5 3 7 Seq. No. 2 Date 0 6 1 4 6 2

Sampling Depth Type $K \times 10^6$ 5 2 3 pH 7 9 Temp. °F

SiO₂ 6 8 Ca 5 1 Mg 2 4 Na 2 6 K 8 0

HCO₃ 2 9 5 CO₃ 0 SO₄ 4 7 Cl 1 0 Source No. 3 Q

Card R

Duplicate Columns 1-25 from Card Q

F 1 1 NO₃ 0 9 PO₄ B Al Fe 0 1 2

Mn 0 0 5 Cu Pb Zn

Determined 3 1 6 Solids Ca, Mg 2 2 5 Hardness Non-Carb.

Color No. R

Card S

Duplicate Columns 1-25 from Card Q

Br I Alk. as CaCO₃ 2 4 2 Free CO₂ 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: 8-25-72
 Published: _____

Northway Well and Pump Co.

4895 8th Avenue
Marion, Iowa 52302

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Well #3

Located between the water department building and the municipal light plant. This well is connected to the city's water system.

Well #3 was constructed in 1955 to the total depth of 1120'.

Original casing schedule was:

16" casing	0' to 140'
14" casing	130" to 235'
10" casing	295' to 410'
8" casing	620' to 750'

The well was relined in 1998.

Casing schedule: 10" casing +3 to 270'
 8" casing 270' to 628'
 6" casing 628' to 767'

The casing was pressure grouted from bottom to top with 244 bags of neat cement.
Well depth: 1034' deep.

The well was not cleaned to the actual depth due to the amount of steel encountered
possibly from a lost pump setting.

Pumping equipment: 40 Hp. motor 460 volt 3 phase
Crown pump S-6230 capable of 130 gpm at 605 TDH
Pump setting is 525' of 4" pipe. Static water level: 231' Pumping level: 488'