Punched FCH

WRD Exp. (GW)
Aug. 1964

Verified PMJ

U. S. DEPARTMENT OF THE INTERIOR — GEOLOGICAL SURVEY

Water Resources Division Well Schedule Form

MASTER CARD

Record by D. AARONSON | Source of data FILE | Date 7/29/65 | Map 1:63,360 COUNTY HWY

State IOWA (16) | County (or town) PAGE (73)

Latitude: 40 39 10 N (S) | Longitude: 095 13 20 | Sequential number: 1

Lat-long accuracy: 3 | T 67 N (S), R 38 W (E) | Sec 5, NE ¼, NE ¼, ¼ 5

Local well number: 067 38W 05 aa | Other number: B & M W-0113

Local use: 001 13 CITY | Owner or name: COIN TOWN WELL

Owner or name: COIN | Address: COIN, IOWA

Ownership: (C) County, (F) Fed Gov't, (M) City, (N) Corp or Co, (P) Private, (S) State Agency, (W) Water Dist — M

Use of water: (A) Air cond, (C) Comm, (D) Dewatering, (F) Fire, (H) Dom, (I) Irr, (N) Ind, (P) S, (S) Stock, (T) Instit, (U) Unused — P

Use of well: (A) Anode, (D) Drain, (G) Seismic, (O) Obs, (P) Oil-gas, (R) Recharge, (S) Spring, (T) Test, (U) Unused, (W) Withdraw, (X) Waste, (Z) Destroyed — W

DATA AVAILABLE: Well data 1 | Freq. W/L meas.: INVENTORY I | Field aquifer char.

Hyd. lab. data:

Qual. water data; type: COMPLETE — C

Freq. sampling: ORIGINAL — Ø | Pumpage inventory: yes / no, period:

Aperture cards: yes

Log data: GEOLOGIST LOG — G

WELL-DESCRIPTION CARD

SAME AS ON MASTER CARD | Depth well: 51.5 ft | Meas. rept | accuracy — 6

Depth cased: (first perf.) 29 ft | Casing type: STEEL; Diam. 16 in

Finish: (C) porous concrete, (F) gravel w. (perf.), (G) gravel w. (screen), (H) horiz. gallery, (O) open end, (P) perf., (S) screen, (T) sd. pt., (W) shored, (X) open hole, (Z) other — X

Method Drilled: (A) air rot., (B) bored, (C) cable, (D) dug, (H) hyd jetted, (J) air percussion, (P) reverse rotary, (R) trenching, (T) driving, (V) drive wash, (W) other — C

Date Drilled: FEB. 1935 | Pump intake setting: 41'8" ft — 42

Driller: THORPE WELL CO. (MEISTERS, HURT & WALKER) DES MOINES, IA.

Lift (type): (A) air, (B) bucket, (C) cent, (J) jet, (L) multiple, (cent.), (M) multiple, (turb.), (N) none, (P) piston, (R) rot, (S) submerg, (T) turb, (Z) other — Deep / Shallow D

Power (type): diesel, elec, gas, gasoline, hand, gas, wind; H.P. | Trans. or meter no.

Descrip. MP: LSD | above / below lsd, Alt. MP 937

Alt. LSD: 937 | Accuracy (source): ALTIMETER — 7

Water Level 15 ft above / below MP; Ft above / below lsd | Accuracy: REPORTED — 6

Date meas: FEB. 1935 | Yield: 55 gpm | Method determined

Drawdown: 22.5 ft | Accuracy: REPT | Pumping period 3 hrs — 3

QUALITY OF WATER DATA: Iron 14.6 ppm — 8 | Sulfate 139.1 ppm — 9 | Chloride 36 ppm — 9 | Hard. 342 ppm — 7

Sp. Conduct K x 10⁶ | Temp. °F | Date sampled MAY 1946 — 546

Taste, color, etc.

067-38W-5aa

Well Number 40 39 10 (N) (S) 095 13 20 (d m s d m s)

HYDROGEOLOGIC CARD

SAME AS ON MASTER CARD | Physiographic Province: CENTRAL LOWLAND — 12 | Section: DISSECTED TILL PLAIN — E

Drainage Basin: TARKIO — 31A | Subbasin:

Topo of well site: (D) local depression, (F) flat surface, (H) hilltop, (S) hillside, (T) terrace, (V) valley flat, — V

MAJOR AQUIFER: QUATERNARY system, PLEISTOCENE series — QG | aquifer, formation, group

Lithology: SAND & GRAVEL — R | Origin: GLACIAL — 1 | Aquifer Thickness: ft

Length of well open to: 10 ft | Depth to top of: 30 ft — 30

MINOR AQUIFER: system, series | aquifer, formation, group

Lithology: | Origin: | Aquifer Thickness: ft

Length of well open to: ft | Depth to top of: ft

Intervals Screened:

Depth to consolidated rock: 48.5 ft — 49 | Source of data: WELL CUTTINGS — C

Depth to basement: ft | Source of data:

Surficial material: SOIL — 7 | Infiltration characteristics: GOOD — 2

Coefficient Trans: gpd/ft | Coefficient Storage:

Coefficient Perm: gpd/ft²; Spec cap: 2.4 gpm/ft; Number of geologic cards: 1

THIS WELL WAS DUG BY HAND, WITH SPADES, FROM CURB TO 21 FEET. SAND BAILED OUT & CURB DRIVEN FROM 21 FT. TO 40 FEET. DRILLED WITH CABLE AND TOOLS, 6 IN. HOLE FROM 40 FT. TO 51'6". CASING 16" O.D. STEEL - CURB TO 29 FEET.

0 / 5

GPO 844-225

067-38W-05 AA
QGX

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey
Water Resources Division

W-0113

Water Quality
(ppm)

Card Q

State: IOWA (16) County: PAGE (73) Town: COIN

Well No. Latitude 403910N (5–11) Longitude 0951320 (12–18) Seq. No. 1 (19) Date M 05 D 29 Y 76 (20–25)

Sampling Depth 52 (26–29) Type 1 (30) Kx10^6 (31–35) pH 7.2 (36–38) Temp. °F (39–41)

SiO_2 (42–44) Ca 94 (45–49) Mg 19 (50–53) Na + K 18 (54–58) K .C (59–61) Source No. 3 Q (79–80)

HCO_3 185 (62–65) CO_3 0 (66–67) SO_4 139 (68–72) Cl 36 (73–78)

Card R

Duplicate Columns 1-25 from Card Q

F .4 (26–28) NO_3 .0 (29–32) PO_4 (33–35) B (36–38) Al (39–41) Fe 15 (42–45)

Mn 33 (46–49) Cu (50–52) Pb (53–54) Zn (55–57)

Solids Determined 487 (58–63) Calc. (64–69) Hardness Ca,Mg 342 (70–73) Non-Carb. (74–77)

Color (78–79) No. (80)

Card S

Duplicate Columns 1-25 from Card Q

Br (26–28) I (29–31) Alk. as $CaCO_3$ 152 (32–35) Free CO_2 (36–38) SAR (39–41)

RSC (42–44) ABS (45–47) (48–50)

Alpha (pc/l) (55–57) Beta (pc/l) (58–60) Ra (pc/l) (61–63) U (ug/l) (64–66)

No. 5 (80)

Recorded by: D. AARONSON

Verified PMJ

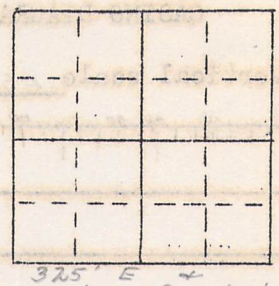
Punched by: Punched PGH Date:

Published:

IOWA GEOLOGICAL SURVEY W-0113

In Cooperation with U. S. Geological Survey

RECORD OF WELL



Location:

Town: Coin (N E / S W): County Page E.

NW - NE sec. 5 T 67 N., R. 38 W. Colfax Twp.

Well name and number Town Well (1935)

Owner _____ Address _____

Tenant _____ Address _____

IERA Project

Contractor Thorpe Well Co Address Des Moines

Drillers Meisters, Hurtt & Walker

Drilling dates Dec. 14, 1934 - Feb. 12, 1935

Well data:

Elevations: Drilling curb 937 feet; Land surface _____ feet

top of 16" casing

Determined by _____

Topographic position valley flat of middle TARKIO CREEK

Total depth: Reported 51½ feet, Measured _____ feet

Drilling method dug by hand 0-21; curb driven 21-40; cable tool 40-51½'

Hole and casing data GRAVEL Pack

66" hole 0-12'; 60" hole 12-21½; 52" hole 21½ to 31'; 48" hole 31'-40'

6" hole 40'-51½'

34' of permanent 16-inch O.D. steel casing from +5 to 29'

clay packing above gravel 13⅝" screen from 29-39'

Original depth to water 15 ft. above below curb Date _____

Original elevation of water level 922 ft.; Source of data driller

Sources of water: Principal Pleist. 30-35; 36½-39; Others Pleist. 46½-48½'

Production data: Date

Static depth to water 15 Measuring point

Pumping level 37 1/2 at 55 g.p.m. after 3 hours most efficient prod. rate

40

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

Pump data; Type pump cylinder Column Dia. 6" Length 41' 8"

Cylinder or bowls: Dia. 5 3/4 Length Suction pipe

Power Airline

Estimated rate of production: g.p.m. for hrs. a day

Use of water

WATER ANALYSES (in parts per million)

Date samples	Feb. 9, 1935	Feb 10, 1935	May 29, 1946	
Sampled by			R.J. Schlickelman	
Total solids	390.0	340.0	487	
Insoluble matter	34.8	32.8	27.5	
Alkalinity (Meo)	158.0	170.0	152	
Alkalinity (Phn)	0.0	0.0	none	
pH	6.6	6.8	6/7/46 7.2	
$Fe_2O_3 + Mn_2O_3 + Al_2O_3$	33.6	26.8	31	
Alkali as sodium	18.0	18.4	17.5	
Calcium	68.0	64.8	93.7	
Magnesium	13.8	14.3	18.5	
Iron (unfiltered)	14.0	15.0	14.6	
Manganese	2.7	2.6	3.3	
Nitrate	0.0	0.0	0.0	
Fluoride	1.3	1.2	0.4	
Chloride	26.0	23.0	36	
Sulfate	70.4	63.7	139.1	
Bicarbonate	192.8	207.4	185.4	
Hardness (ppm)	258.0	253.0	342	
Hardness (gpg)			20.0	

Remarks After 3 hours pumping 20 hrs. Market 47' gravel Pack

Laboratory data: Sample storage location

Sample range 3-5 1/2 No. spls. 24 No. dupls. & cond. 23 f-g

Spls. prepared by Washed range by

Driller's log and cond.

Insoluble residues: Prepared by Studied by Strip log

Microscopic study strip log 8/23/51

Gen. log Correl. by NORTHUP