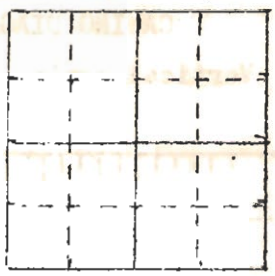
IOWA GEOLOGICAL SURVEY
In Cooperation with U. S. Geological Survey

W-1785



RECORD OF WELL

Location:

Town: Atlantic City #7 (N E / S W); County Cass

NE SW sec. 21 T. 76 N., R. 36 W. Twp.

Well name and number City well #7

Owner _____ Address _____

Tenant _____ Address _____

_____

Contractor Thorpe Well Co. Address Des Moines

Drillers Ray McGrew

Drilling dates Aug. 11, 1942 to Oct. 3, 1942

Well data:

Elevations: Drilling curb _____ feet, Land surface _____ feet

_____

_____

Determined by _____

Topographic position _____

Total depth: Reported 82' 8" feet, Measured _____ feet

_____

Drilling method cable

Hole and casing data 12" casing set at 58' 2"
(Give amount, size, kind, and depth of all casing; type and
25' of 12" Everdur screen set at 82' 8"
position of seals and packers; cementing; how finished--perforated pipe, screen,
11' 5" of 10" casing set at 57' 8" & attached to screen
gravel pack, open hole, etc.)

_____

_____

_____

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

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

_____

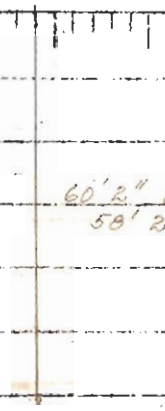
Sources of water: Principal Dakota SS ; Others _____

_____

CASING DIAGRAM

Vertical scale 1" = 5'

LOG



60' 2" of 12" set at 58' 2"

11' 5" of 10" screen set at 57' 8" & attached to screen.

25' of 12" Everdur screen set at 82' 8"

Blk subsoil

5

Gr. clay

15

Sdy clay

20

Sd & grav.

28

Yel sd & clay

53

Dak sd.

55

60

Sd.

80

Yel mud & grav.

T.D. 82' 8"

Production data: Date _____

Static depth to water 24' Measuring point _____

Pumping level 41' at 222 g.p.m.

_____ _____

_____ _____

_____ _____

Specific capacity 13+ g.p.m. per ft. drawdown; Temperature _____ °F.

Pump data; Type pump _____ Column Dia. _____ Length _____

Cylinder or bowls: Dia. _____ 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 sampled				
Sampled by				
Total solids				
Insoluble matter				
Alkalinity (Meo)				
Alkalinity (Phn)				
pH				
Fe_2O_3+ Mn_2O_3+Al_2O_3				
Alkali as sodium				
Calcium				
Magnesium				
Iron (unfiltered)				
Manganese				
Nitrate				
Fluoride				
Chloride				
Sulfate				
Bicarbonate				
Hardness (ppm)				
Hardness (gpg)				

Remarks _____

Laboratory data: Sample storage location _____

Sample range 0 - 82'8" No. spls. 18 No. dupls. & cond. 16 Excellent

Spls. prepared by Kruger Washed range none by _____

Driller's log and cond. yes good

Insoluble residues: Prepared by _____ Studied by _____ Strip log _____

Microscopic study 0 - 82 Ed. strip log April 5, 1945 E.S.

Gen. log _____ Correl. by E. Schultz

Punched FCH

Verified PMJ

WRD Exp. (GW)
Aug. 1964

U. S. DEPARTMENT OF THE INTERIOR GEOLOGICAL SURVEY

Water Resources Division Well Schedule Form

MASTER CARD

Record by R.W. COBLE Source of data FILE Date 7/13/65 Map County Hwy 1"=3,360

State IOWA (1 6) County (or town) CASS (1 5)

Latitude: 41 24 30 N (5 deg 7 min 9 sec 11 N S) Longitude: 094 59 50 (12 degrees 15 min sec 18 E W) Sequential number: 1 (19)

Lat-long accuracy: 3 (20) T. 76 N S, R. 36 W, Sec. 4, NE ¼, SW ¼, ¼, 5

Local well number: 076360W04CA (21 30) Other number: W-1785 B & M (31 34)

Local use: 0178542CITY (35 45 51) Owner or name: City of ATLANTIC

Owner or name: ATLANTIC IOWA (52 56 61 66) Address: ATLANTIC, IOWA

Ownership: (C) County, (F) Fed Gov't, (M) City, (N) Corp or Co, (P) Private, (S) State Agency, (W) Water Dist — M (67)

Use of water: (A) Air cond, (C) Comm, (D) Dewatering, (F) Fire, (H) Dom, (I) Irr, (N) Ind, (P) P S, (S) Stock, (T) Instit, (U) Unused — P (68)

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 (69)

DATA AVAILABLE: Well data 1 (70) Freq. W/L meas.: ORIGINAL 2 (71) Field aquifer char. (72)

Hyd. lab. data: (73)

Qual. water data; type: COMPLETE C (74)

Freq. sampling: ONLY ONE FOUND 0 (75) Pumpage inventory: yes no, period: (76)

Aperture cards: yes (77)

Log data: GEOLOGIC AND DRILLERS GD (78 79)

WELL-DESCRIPTION CARD

SAME AS ON MASTER CARD (1 19) Depth well: 82' 8" ft 83 (20 23) Meas. rept DRL accuracy 3 (24)

Depth cased; (first perf.) 58' 2" ft 58 (25 28) Casing type: ; Diam. 12 in 12 (29 30)

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 — S (31)

Method Drilled: (A) air rot, (B) bored, (C) cable, (D) dug, (H) hyd rot., (J) jetted, (P) air percussion, (R) reverse rotary, (T) trenching, (V) driven, (W) drive wash, (Z) other — (32)

Date Drilled: 10/3/42 942 (33 35) Pump intake setting: ft (36 38)

Driller: THORPE WELL CO. (name), DES MOINES, IOWA (address)

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 — (39) Deep (40) Shallow

Power (type): nat diesel, elec, gas, gasoline, hand, LPG gas, wind; H.P. (41) Trans. or meter no.

Descrip. MP LSD ft above below lsd, Alt. MP 1152

Alt. LSD: 1152 1152 (42 45) Accuracy: (source) ALT 7 (47)

Water Level 24 ft above below MP; Ft above below lsd 24 (48 51) Accuracy: DRL 3 (52)

Date meas: 10/3/42 (53 55) Yield: 222 gpm 222 (56 60) Method determined (61)

Drawdown: 17 ft 17 (62 64) Accuracy: DRL 3 (65) Pumping period hrs (66 68)

QUALITY OF WATER DATA: Iron 0.04 ppm 0 (69) Sulfate 104 ppm 4 (70) Chloride 14 ppm 1 (71) Hard. 248 ppm 6 (72)

Sp. Conduct 530 K x 10^6 4 (73) Temp. 56 °F 56 (74 76) Date sampled 7/11/60 760 (77 79)

Taste, color, etc.

076-36W-04 ca.

Well Number 41 24 30 N 094 59 50
d m s S d m s

HYDROGEOLOGIC CARD

SAME AS ON MASTER CARD (1) Physiographic Province: CENT. LOW. (20-21) 12 Section: DISSECTED TILL PLAIN (22) E Drainage Basin: NISHNABOTNA (23-25) 350 Subbasin: (26)

Topo of well site: local depression, flat surface, hilltop, hillside, terrace, valley flat, (D) (F) (H) (S) (T) (V) (27)

MAJOR AQUIFER: CRET system, LOWER series (28-29) K1 DAKOTA SS aquifer, formation, group (30-31) D1

Lithology: FINE SS (32-33) 2V Origin: MARINE (34) 6 Aquifer Thickness: ft

(35-37) Length of well open to: 22 ft (38-40) 227 Depth to top of: 58 ft (41-43) 58

MINOR AQUIFER: system, series (44-45) aquifer, formation, group (46-47)

Lithology: (48-49) Origin: (50) Aquifer Thickness: ft

(51-53) Length of well open to: ft (54-56) Depth to top of: ft (57-59)

Intervals Screened: 58'2" - 82'8"

Depth to consolidated rock: 53 ft (60-62) 53 Source of data: SAMPLES (64) C

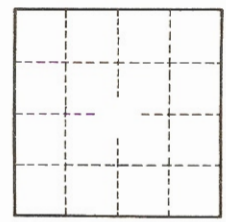
Depth to basement: ft (63-65) (68) Source of data: (69)

Surficial material: LOESS (70-71) 08 Infiltration characteristics: FAIR (72) 3

Coefficient Trans: gpd/ft (73-75) Coefficient Storage: (76-78)

Coefficient Perm: gpd/ft^2; Spec cap: 2.2 gpm/ft; Number of geologic cards: (79)

CASING
12" TO 58'2"
12" SCREEN 57'8" - 82'8"



GPO 844-225