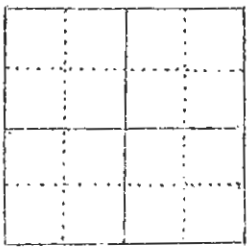
W-1732

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



Location:

Town: Orient (N E) (S W) :County Adair

sec. 16 T. 74 N., R. 31 E. W. Twp.

Well name and number Orient Town Test No. 2

Owner Town of Orient Address

Tenant Address

Contractor Thorpe Well Co. Address

Drillers

Drilling dates July 1941

Well data:

Altitudes: Drilling curb feet; Land surface feet

Determined by

Topographic position

Total depth: Reported 232 feet, Measured feet

Drilling method

Hole and casing data

Original depth to water above ft. below Date

Source of data

Sources of water: Principal

Others

Production Data

Date				
Static water level	45'			
Measuring point				
Pumping water level	193			
Yield (g. p. m.)	7 GPM			
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 (SiO_2)				
Iron (Fe)				
Manganese (Mn)				
Calcium (Ca)				
Magnesium (Mg)				
Potassium (K)				
Sodium (Na)				
Carbonate (CO_3)				
Bicarbonate (HCO_3)				
Sulfate (SO_4)				
Chloride (Cl)				
Fluoride (F)				
Nitrate (NO_3)				
Dissolved solids				
Hardness (as $CaCO_3$)				
Total				
Grains per gallon				
Noncarbonate				
Alkalinity (as $CaCO_3$)				
pH				
Specific conductance (micromhos at 25°C)				
Temperature (°F)				
Analysis No.				

Laboratory Data

Well No. _____ Sample range _____ No. of samples _____

No. of dupls. and cond. _____ Washed range _____

Samples prepared by _____ Date _____

Logged by NORTHUP Date 8/3/53

Correlations by NORTHUP Date 8/3/53

074-31W-16 DAB
QGX

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey
Water Resources Division

Water Quality
(ppm)

Card Q

State: _____ (1–2) County: ADAIR (3–4) Town: ORIENT

Well No. Latitude 411217N (5–11) Longitude 0941550 (12–18) Seq. No. 1 (19) Date M 12 D 25 Y 53 (20–25)

Sampling Depth 29 (26–29) Type 1 (30) Kx10⁶ 3105 (31–35) pH 7.2 (36–38) Temp. °F (39–41)

SiO_2 (42–44) Ca 449 (45–49) Mg 19 (50–53) Na 20 (54–58) K 9.0 (59–61)

Source No. 2 (79) 1 (80)

HCO_3 (62–65) CO_3 (66–67) SO_4 110 (68–72) Cl 4 (73–78)

Card R

Duplicate Columns 1-25 from Card Q

F X (26–28) NO_3 0.0 (29–32) PO_4 (33–35) B (36–38) Al (39–41) Fe .7 (42–45)

Mn 12 (46–49) Cu (50–52) Pb (53–54) Zn (55–57)

Solids Determined 360 (58–63) Calc. (64–69) Hardness Ca,Mg 50 (70–73) Non-Carb. (74–77)

Color (78–79) No. 2 (80)

Card S

Duplicate Columns 1-25 from Card Q

Br (26–28) I (29–31) Alk. as $CaCO_3$ (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)

Verified PMJ No. 5 (80)

Punched PCH

Recorded by: D HARGNESS Punched by: _____ Date: _____

Published: _____

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

COUNTY NWY

Record by D.AARONSON Source of data FILE Date 7/21/65 Map 1:63,360

State IOWA (16) County (or town) ADAIR (1)

Latitude: 41 12 27 N (1) Longitude: 094 25 06 (1) Sequential number:

Lat-long accuracy: 2 T. 74 N S, R. 31 E W, Sec. 16, NW¼, NE¼, SE¼ 5

Local well number: 074 31 W 16 d a D1 Other number: B & M W-1732 TOWN WELL #2

Local use: 01732 CITY T2 Owner or name: ORIENTTOWNTEST#2

Owner or name: ØRIENT Address: ORIENT, 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) 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 3 Freq. W/L meas.: INVENTORY Ø Field aquifer char.

Hyd. lab. data:

Qual. water data: type: COMPLETE (C)

Freq. sampling: INTERMITTENT (I) Pumpage inventory: yes no, period:

Aperture cards: yes

Log data: GEOLOGIST LOG (G)

WELL-DESCRIPTION CARD

SAME AS ON MASTER CARD Depth well: 239 ft 2390 Meas. rept accuracy (6)

Depth cased: (first perf.) 231 ft 2310 Casing type: STEEL ; Diam. 8 in (8)

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

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

Date Drilled: JULY 1941 (9411) Pump intake setting: ft

Driller: THURPE WELL CO. name, DES MOINES, IA 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 Deep (D) Shallow

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

Descrip. MP LSD ft above below lsd, Alt. MP 1334

Alt. LSD: 1334 (1334) Accuracy: (source) ALTIMETER (7)

Water Level 45 ft above (below) MP; Ft above (below) lsd (45) Accuracy: REPT (6)

Date meas: JULY 1941 (7411) Yield: 7 gpm (7) Method determined

Drawdown: 148 ft (148) Accuracy: REPT (6) Pumping period hrs

QUALITY OF WATER DATA: Iron 2.7 ppm (5) Sulfate 207.5 ppm (9) Chloride 48.0 ppm (2) Hard. 1949.1 ppm (9)

Sp. Conduct 3105 K x 10⁻⁶ Temp. °F Date sampled 12-22-53 (D53)

Taste, color, etc.

074-31W-16 dab

Well Number 41, 12, 27 (N) 094, 25, 06
d m s (S) d m s

HYDROGEOLOGIC CARD

SAME AS ON MASTER CARD (1–19) Physiographic Province: CENTRAL LOWLAND (20–21) 12 Section: DISSECTED TILL PLAIN (22)

Drainage Basin: NODAWAY (23–25) 311B Subbasin: (26)

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

MAJOR AQUIFER: (system), (series) X (28–29) (aquifer, formation, group) (30–31)

Lithology: WHITE SAND (32–33) S Origin: (34) Aquifer Thickness: 4 ft

(35–37) 4 Length of well open to: 4 ft (38–40) 4 Depth to top of: 235 ft (41–43) 235

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:

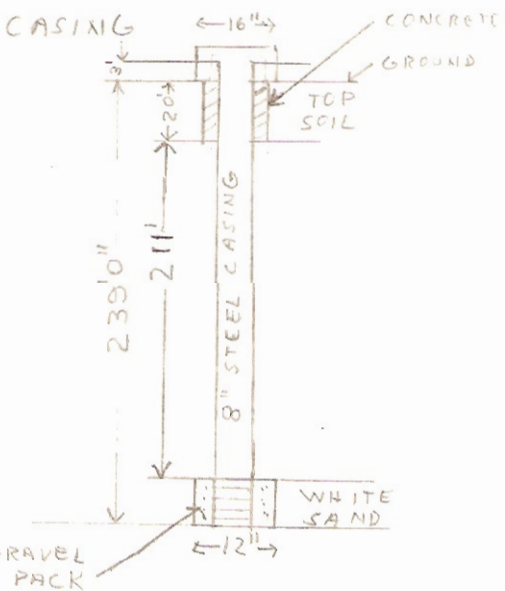
Depth to consolidated rock: ft (60–63) Source of data: (64)

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

Surficial material: (70–71) Infiltration characteristics: POOR (72) 4

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

Coefficient Perm: gpd/ft^2; Spec cap: .04 gpm/ft; Number of geologic cards: (79)





GPO 844-225