

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

RECORD OF WELL

W-0761

	35	

Location:

Town: Edgewood (N E)
(S W); County Clayton
SW-SE-SW sec. 35 T. 91 N., R. 5 W. Lodamille Twp.

Well name and number Edgewood Town Well

Owner City of Edgewood Address _____

Tenant _____ Address _____

Contractor C.W. Varner Address Dubuque

Drillers _____

Drilling dates 6/12/34 - 10/12/35 Deepened from 128'

Well data:

Elevations: Drilling curb 1165.6 feet; Land surface _____ feet

Determined by D.A.B. & W.F.H.

Topographic position _____

Total depth: Reported 1080 feet, Measured _____ feet

Drilling method _____

Hole and casing data 128' of 8" casing 0-128, 308' of 6" casing 128-436

(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.)
165' of 6" liner from 271-436

Original depth to water 93 ^{above} ft. below _____ Date _____

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

Sources of water: Principal above St. Peter; Others _____

Production data: Date _____
Static depth to water 76 Measuring point _____
Pumping level _____ at 80 g.p.m. for 45 min.

Specific capacity _____ 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 ₂ O ₃ + Mn ₂ O ₃ + Al ₂ O 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 150' - 1150' No. spls. 207 No. dupls. & cond. 199 P-6
Spls. prepared by _____ Washed range _____ by _____
Driller's log and cond. _____
Insoluble residues: Prepared by _____ Studied by _____ Strip log _____
Microscopic study Self & Elias strip log Self
Gen. log yes Correl. by Self

C
O
P
YEdgewood - Clayton Co.
City Well

Date Started 6-22-34

Completed 10-12-35

Note: Work suspended from 11-17-34 to 6-1-35
6-16-35 to 10-7-35Curb Elev 1182'Curb Elev = 1165 H&M

Depth - 1080'

Diameter - Drilled deeper, 8" from 128' to 436'; 6" to 1080'

Casing - 432' of 6"

STRATA RECORD

Depth		Thickness	Description of Beds
From	To		
Top	140	140	No record
140	230	90	Lime, gray
230	255	25	Lime, brown
255	262	7	No record
262	365	103	Shale, Maquoketa
365	470	105	Lime
470	683	213	Lime, brown
683	780	97	Blue lime and clay
780	833	53	Sandstone
833	852	19	Blue clay
852	965	113	Lime, flinty
965	997	32	Lime, soft
997	1128	131	Lime
1128	1139	11	Sand

Total depth of well 1139' less 59' of tools in well -- 1080'.

Note: 165' of 6" liner. Top is 271' from surface. 147' of 6" pipe with 6 x 8 packer on bottom, top of pipe extends to surface. Well furnished 80 gals. for 45 min. Drawdown to 12' of bottom of pump. Static Level 76'

271
165
106
436

C. W. VARNER

C

O

P

Y

Date 11-24-34

North well was 8" in diameter and 128' deep. Well was dry and pump was not pumping any water. Well was drilled 8" in diameter from 128' to 261' and 6" test pump placed.

6-30-34

Test No. 1 -- 18 hrs.

Static Head - 75'

86' of pump in water

Drawdown to bottom of pump. Rate of pumping -- 55 gal. in 1 minute, 50 seconds.

South well would pump air when test pump was running, showing that both wells were connected at 261'. We placed air line in south well and found that drawdown was 200' when pumping 28 G.P.M.

Maquoketa

7-18-34

Test No. 2 -- 11½ hrs.

Static Head - 85'

180' of pump in well

Drawdown to bottom of pump

Rate of pumping - 40 G.P.M.

Depth of well - 750' - *into Plattville*

7-28-34

Test No. 3 -- 9 hrs.

Static Head - 80'

176' of pump in well

Pump operated at 46 G.P.M.

Air gauge at start was 42 lbs.

Drawdown to bottom of pump

Rate of pumping - 60 gal. in 1 minute & ? seconds.

Depth of well - 880' *to bottom*

Test No. 4

Static Head - 90'

240' of pump in well

Drawdown to bottom of pump

Rate of pumping - 48 G.P.M.

Depth of well - 1139', 12" in Jordan Sandstone

Lodgepole Town Well

W-0161

Curb El. 1165

No	Rock Unit	Description	Thick	From To
SILURIAN				
<u>Hopkinton formation</u>				
1	Dolomite, pale to lt. buff, v. fn. to fn., rare pyrite, up to 50% chert, white opaque, little gray translucent	20	120-140	
2	Dolomite, lt. buff, v. fn. to fn., rare pyrite, little chert	55	140-195	
3	Dolomite, lt. buff to lt. gray, fn. to med., slightly porous	20	195-215	
4	Dolomite, lt. gray, little buff, fn. to med., 5% chert, white and pale gray and buff, opaque, some translucent	15	215-230	
5	Dolomite, lt. gray, v. fn. to fn., 10% chert	10	230-240	
ORDOVICIAN				
<u>Maquoketa formation [925']</u>				
<u>Brainard</u>				
6	Dolomite, slightly shaly, lt. gray, little med. gray, fn.	10	240-250	
7	Shale, dolomitic, lt. greenish gray, few dk. brown spots	20	250-270	
8	Shale, dolomitic, lt. olive gray with some lt. greenish gray	45	270-315	
9	Shale, dolomitic, lt. gray, little lt. olive gray	20	315-335	
10	Shale, lt. olive green, brittle fracture	5	335-340	
11	Shale, dolomitic, lt. gray, little lt. olive gray	25	340-365	
<u>Fort Atkinson</u>				
12	Dolomite, med. drab, fn. to med., up to 20% chert at top, lt. drab, opaque	26	365-391	
<u>Clermont, Elgin</u>				
13	Shale, v. dolomitic, lt. gray, some slightly greenish	34	391-425	
14	Dolomite, shaly, med. drab, fn. to med., granular	5	425-430	
15	Shale, v. dolomitic, lt. gray and lt. olive gray	5	430-435	
16	Dolomite, v. shaly, med. drab, fn. to med.	21	435-456	
<u>Galena formation [703']</u>				
<u>Dubuque, Stewartville</u>				
17	Limestone, dolomitic, lt. drab some pale gray, much cinnamon speckling, med., rare coarse, foss. - crinoids, ostracodes.	19	456-475	OK
18	Limestone, dolomitic, pale gray flourey containing few to many med. to coarse lt. drab to buff dol. rhombs, some ls. entirely replaced by dol.	85	475-560	
<u>Dresser-Ion</u>				
19	Limestone, dolomitic, the same limestone continuing but containing about 5% sh. ment, getting as high as 25%; little brown shale partings at base	120	560-680	
20	Limestone, slightly dolomitic, pale to lt. drabish gray with black foss. specks, flourey to med., v. foss. rare pyrite	30	680-710	
<u>Guttenberg</u>				
21	Limestone, pale buff and drab to med. drab brown, cinnamon speckled flourey, black fossil	12	710-722	
<u>Speech's Ferry</u>				
22	Shale, lt. grayish green and lt. gray, black fossils - mostly large corals	5	722-727	
<u>McGregor</u>				
23	Limestone, dolomitic, pale to lt. gray, some drabish, flourey to lt. drab, occasional black foss. fragments	36	727-763	
<u>Pecatonica</u>				
24	Dolomite, pale gray to med. drab, fn. to med. sash, full of black grains	12	763-775	
<u>Glenwood</u>				
25	Shale, lt. greenish green, poorly laminated	5	775-780	
<u>St. Peter formation [585']</u>				
26	Sand, sub-ang. to curvilinear, poorly sorted, evenly distributed from fn. to coarse, frosted, little secondary growth, 15% cemented by pyrite	6	780-785	OK
27	Sand, maj. gr. $\frac{1}{2}$ -1, prim. sub. $\frac{1}{4}$ - $\frac{1}{2}$	15	785-800	
28	Sand, maj. gr. $\frac{1}{4}$ - $\frac{1}{2}$, prim. sub. $\frac{1}{2}$ -1, $\frac{1}{8}$ - $\frac{1}{4}$	5	800-805	
29	Sand, ang. to curvilinear, maj. gr. $\frac{1}{8}$ - $\frac{1}{4}$, prim. sub. $\frac{1}{4}$ - $\frac{1}{2}$, little iron oxide	10	805-815	

30	Sand, ang. to curvilinear; maj. gr. $\frac{1}{8}$ - $\frac{1}{4}$, prin. sub. $\frac{1}{16}$ - $\frac{1}{8}$, little iron oxide, 5	815-820
31	Sand, ang. to curvilinear, fn. to med, little iron oxide	5 820-825
32	Sand, ang. to curvilinear, maj. gr. $\frac{1}{8}$ - $\frac{1}{4}$, prin. sub. $\frac{1}{16}$ - $\frac{1}{8}$, $\frac{1}{4}$ - $\frac{1}{2}$	12 825-837 OF.
<u>Prairie du Chien formation</u>		
33	Dolomite, lt. drab and buff, fn. to med. compact to sacch.	3 837-840
34	Dolomite, v. pale buff, v. fn.	10 840-850