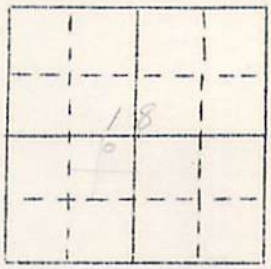
W-0824

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

RECORD OF WELL



Location:

Town: Clarksville (N E) (S W); County Butler E.

see note on back of log NW NE NE SW NW NW-NE-NE-SW sec. 18 T. 92 N., R. 15 W. Butler Twp.

Well name and number City Well No 4

Owner _____ Address _____

Tenant _____ Address _____

Contractor Ford Address Marshalltown

Drillers Nolan

Drilling dates 1938

Well data:

Elevations: Drilling curb 935 feet; Land surface Topo Elev. 942' feet

Determined by _____

Topographic position _____

Total depth: Reported _____ feet, Measured 230' feet

Drilling method _____

Hole and casing data 34" to 4' 6" to bed rock

(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.)

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

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

Sources of water: Principal _____; Others _____

Production data: Date _____

Static depth to water _____ Measuring point _____

Pumping level _____ at _____ g.p.m.

_____ _____

_____ _____

_____ _____

Specific capacity _____ g.p.m. per ft. drawdown; Temperature 50½ °F.

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

Cylinder or bowls: Dia. _____ Length _____ Suction pipe _____

Power 20 H.P. Electric 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 _____ No. spls. _____ No. dupls. & cond. _____

Spls. prepared by _____ Washed range _____ by _____

Driller's log and cond. _____

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

Microscopic study 0-320 Schmidt strip log Gardner

Gen. log _____ Correl. by Schmidt

Sheet No. 1 Name of Well Clarksville City Well Survey No.

Location Date Drilled Analyst Schuldt

00 — Soil, drk br, with consid. loess, occas sd. gr.

5 — sand & silt, lt. yel. br., sd. med. to crse, with consid loessal mat,

10 — sand & silt, sim. to unit 5-10'

15 — sand & silt, " " " 5-10'; with num. small pebbles

20 — sand & granules, v. silty, sim. to unit 15-20'

25 — sand. to fine pebbles, v. silty, sim. to unit 15-20'

30 — sand to fine pebbles, v. " , " " " " " " "

sand & granules, buff, sd. crse, ang., v. dom. Qz, granules of Qz & drk ig. Mat. clean

40 — sand to small pebbles, buff, silty, clayey; granules & pebbles dom. ls., Ig. mat. common.

sand, med. to crse, poorly sorted, ang., with occas. drk. ig gr. 45%
ls, lt. buff, fine text., in part transl., as sand sized frag. 55%

50 — sand. to small pebbles, pebbles dom. lt. buff ls, subang., with occas. drk. ig. mat. sd. crse, subang., dom. Qz, silty

sand to small pebbles, sim. to unit 50-55'

Pleist. / Cedar Valley? 60 — ls, lt. buff, fine text., as num. pebble sized frag. with 50% caved Qz & drk ig frag

ls, lt. buff fine text, as num. pebble sized fragments with 10% caved Qz buff well floor.

70 — ls, lt. buff, sple sim. to sple 65-70'. frag. show laminated lithographic Texture.

65% Rk

ls, lt. buff, sim. to sple 65-70'

80 — ls, lt. buff, sim. to sple 65-70'

ls, lt. buff, ~~tan~~ drab fine xline, soft, drills to well floor.

90 — ls, lt. drab sim. to sple 85-90. occas. caved ls. pebbles

ls, buff, sim. to sple 85-90 but as fine sd. (washed?), cont. 2-3% fine Qz sd., (Cave?)

00

Sheet No. 2 Name of Well Clarksville — Survey No.

Location Date Drilled Analyst Schuldt

100 — ls, buff, sim. to unit 95-100, breaking down entirely to fine xtal sd.

105 — ls, " " " " " " " " " " " " " ".

110 — Dol, drab, v. fine xline to sacc. text., subtransl, hrd, vit., rare crse Qz sd. gr.,

115 — ls, dol, lt. buff, fine text., soft, mod. effery, 25%

Dol., lt. gray, fine xline, soft, drills to well mud, with 5% Wh. cht. & 5% drab transl. dol. (cave?)

120 — 35% RK

Dol., lt. gray, fine xline, soft, drills to well mud. With 5% Wh. to lt. buff cht; 5% drab, transl. dol. (cave?)

125 — 35% RK

Dol, lt drab to buff, fine xline to sacc. text., hrd, 2 frag caved Gray dol <1% cht.

130 — 25% RK

Dol, lt. buff to drab, fine xline, transl., sim. to unit 135-140' " " .

135 —

Dol., v. pale buff, fine sacc. text, soft, drills to well flour.

ls, dol, br., transl, hrd, vit., 30%

140 — No well mud in this spl (Washed)

Dol & ls, sim. to spl 135-140, mod. quant. Well mud.

145 — 80% RK

Dol. & ls, sim. to spl 135-140' " " " " .

150 —

Dol, lt. buff, fine xline, & ls, br., Transl, sim. to unit 135-140 but no well mud & little Sd. (washed?) dol. v. predom.

155 —

Dol., & ls, sim. to 135-140 dol. v. predom 1 frag. cht. no well mud

160 —

Dol. " " " " " " " coating of v. fine xtal sd.

165 —

Dol., & ls " " " " " " " " " " " " " "

ls. drk gray, hrd, vitreous.

170 —

ls, lt. gray, flaky text., soft, with 10% lt. buff dol, cave.

175 —

ls, " " , sim. to unit 170-175' flat flaky fract. foss

180 —

ls, " " , " " " " " " " " " " " "

No cave

185 —

ls, " " , " " " " " " " " " " foss. (bryozoans) No Well mud

No cave

190 —

ls " " , " " " " " " " " " " " ,

195 —

ls, " buff, as fine xtal sd.

200 —

Sheet No. 3 Name of Well Clarksville Survey No.

Location Date Drilled Analyst Schuldt

200 — Ls, lt. buff, as fine-xtal sd., with lt. blue foss. beds, sim. to unit 195-200'

205

Ls., lt. buff, as fine xline. sd, sim. to unit 195-200'

10 — Ls, lt. buff, as fine xline. sd., sim. to unit 195-200' 5 % blue ls

Ls, lt. buff, " " " " " " " " - ". 3 % " "

20 — Ls, lt. buff, as fine x line sd. " " " " - ", 5 % " "

Ls, lt. buff, as fine xline sd. " " " " - ". 5 % blue ls.

30

40

50

60

70

80

90

00

GENERALIZED LOG

W-0824

Clarksville City Well

Analyst W.C.Schuldt
10/21/38

Unit	Unit	Description	Thick	From	To
	Pleistocene System				
	1.	Soil, dark brown, with fine silty texture and occasional sand grains	5'	0	5'
	2.	Sand and silt, light yellow brown, resembling Loess in appearance, but with much medium to coarse sand	10'	5'	15'
	3.	Sand to small pebbles, silty,	20'	15'	35'
	4.	Sand, coarse to small pebbles. Granules and pebbles of quartz, and dark igneous material, and much light buff limestone	10'	35'	40'
	5.	Sand, medium to coarse grained, poorly sorted, angular. With 50% limestone and 50% quartz.	5'	40'	45'
	6.	Sand to small pebbles. Dominantly of buff limestone with occassional dark igneous granules. Silty, sand dominantly quartz	10'	45'	55'
	Devonian System				
	7.	Limestone, light buff, fine textured, as small fragments	25'	60'	85'
	8.	Limestone, light buff to drab, fine crystalline, soft, drills to well flour.	10'	85'	95'
	9.	Limestone, buff, fine crystalline, drills to fine crystal sand	15'	95'	110'
	Silurian System (?)				
	10.	Dolomite, drab, very fine crystalline to saccaroidal texture, subtransluscent, hard, vitreous. Rare quartz sand grains	5'	110'	115'
	11.	Dolomite, light gray, fine crystalline, soft, drills to well mud. 5% white chert	10'	115'	125'
	12.	Dolomite, light drab to buff, fine crystalline to saccaroidal textured, hard	10'	125'	135'
	13.	Dolomite, light drab, fine crystalline, and limestone, brown, transluscent, hard, vitreous	35'	135'	170'
	14.	Limestone, light gray, flaky texture, soft, fossiliferous	25'	170'	195'
	15.	Limestone, buff, with blue fossiliferous beds. Drills to fine crystalline sand.	35'	195'	230'