

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

No. samples
see remarks

RECORD OF WELL

Location:

Town: Havlock (N E)
(S W): County Pocahontas
E. NE - SE - SE sec. 26 T 93 N., R. 33 W. Cummins Twp.

Well name and number City Well #3 (1938)

Owner _____ Address _____

Tenant _____ Address _____

Contractor F. S. McCutcheon Address Des Moines

Drillers E. Martin

Drilling dates 1938

Well data:

Elevations: Drilling curb 1236 feet; Land surface _____ feet

Determined by _____

Topographic position _____

Total depth: Reported 218 feet, Measured _____ feet

Drilling method _____

Hole and casing data _____

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

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

Sources of water: Principal Dakota ; Others _____

Production data:

Date _____

Static depth to water 37 Measuring point _____

Pumping level _____ at _____ g.p.m.

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 samples _____

Sampled by _____

Total solids _____

Insoluble matter _____

Alkalinity (Meo) _____

Alkalinity (Phn) _____

pH _____

Fe₂O₃ + Mn₂O₃ + Al₂O₃ _____

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. Yes

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

Microscopic study _____ strip log by L. Babach from driller's log

Gen. log _____ Correl. by _____

CASING DIAGRAM

LOG

Vertical scale _____

	0-5	Black dirt
	5-15	Yellow clay
	15-60	Blue clay
	60-68	Gravel
	68-104	Gray shale
	104-109	Solidified Gravel
	109-114	Gravel
	114-138	Brown shale
	138-141	sandstone
	141-150	Brown shale
	150-160	sandy shale
	160-190	Sandstone (muddy at top)
	190-200	Muddy sand (caves)
	200-205	Shale & sandstone
	205-215	Sandstone
	215-218	Brown shale

WATER LEVEL DATA

Measuring point _____

Date	Depth to water	Altitude	Remarks

REMARKS

Test hole W-0752 drilled to 290'

Drift - few sand streaks 0-112'

Shale, yellow & gray 112 - 145

Sandstone, yellowish 145 - 285

Shale 285 - 290'

WRD Exp. (GW)
Aug. 1964

Vertical DW

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 6/30/65 Map 1163360 COUNTY HWY

State IOWA County (or town) POCAHONTAS Sequential number: 716

Latitude: 42° 15' 15" N Longitude: 91° 19' 15" W

Lat-long accuracy: 25' Sec 26 VI SE 5

Local well number: 38 Other number: _____ B & M

Local use: 38 Owner or name: CITY OF HAVELock

Owner or name: HAVELock IOWA Address: HAVELock, IA

Ownership: County, Fed Gov't, (M) City, Corp or Co, Private, State Agency, Water Dist _____

Use of water: (A) Air cond, Comm, Dewatering, Fire, Dom, Irr, Ind, (P) P S, Stock, Instit, Unused _____

Use of well: (A) Anode, Drain, Seismic, Obs, Oil-gas, Recharge, Spring, Test, Unused, (M) Withdraw, Waste, Destroyed _____

DATA AVAILABLE: Well data _____ Freq. W/L meas.: ORIGINAL Field aquifer char. _____

Hyd. lab. data: _____

Qual. water data: type: ANALYTICAL

Freq. sampling: _____ Pumpage inventory: (no) period: _____

Aperture cards: _____

Log data: DRILLERS

WELL-DESCRIPTION CARD

SAME AS ON MASTER CARD Depth well: 218 ft. Casing depth: 215 ft. Mess. accuracy: ORL

Depth cased: 138 ft. Casing type: _____; Diam. in _____

Finish: porous gravel w. gravel w. horiz. open perf., screen, ad. pt., shored, (X) open hole, other _____

Method: (A) air bored, cable, dug, hyd jetted, air reverse trenching, driven, drive wash, other _____

Drilled: rot., rot., percussion, rotary, other _____

Date drilled: 1938 Pump intake setting: _____ ft.

Driller: F.S. McUTCHEON, RESMINE IOWA

Lift: (A) air, bucket, cent, jet, (L) multiple, (M) multiple, (N) none, (P) piston, (R) rot, (S) submerg, (T) turb, other _____ Deep _____ Shallow _____

Power: nat LPG _____ Trans. or meter no. _____

(type) diesel, elec, gas, gasoline, hand, gas, wind; H.P. _____

Descrip. MP LAND SURFACE ft above led, Alt. MP 1239

Alt. LSD: 1239 Accuracy: (source) ALT

Water Level: 37 ft above MP; Ft below Id _____ Accuracy: ORL

Date meas: 3/30/38 Yield: 1010 gpm Method determined: 3

Drawdown: 4 ft Accuracy: ORL Pumping period _____ hrs

QUALITY OF WATER DATA: Iron 3.2 ppm Sulfate 157 ppm Chloride 5.0 ppm Hard. 597 ppm

Sp. Conduct _____ K x 10⁶ Temp. _____ °F Date sampled 4/19/39

Taste, color, etc. _____

Well Number 42.50.18 ^N094.41.57.1

HYDROGEOLOGIC CARD

SAME AS ON MASTER CARD		Physiographic Province: <u>CENT. LOW.</u>		Section: <u>WES</u>	
<u>LAKE</u> <input checked="" type="checkbox"/>		Drainage Basin: <u>DES MOINES</u>		Subbasin: <u>2</u>	
Top of well site: (D) (P) (H) (S) (T) (V)		aquifer, formation, group		Thickness: <u>12</u> ft	
MAJOR AQUIFER: <u>CRETACEOUS, LOWER</u>		<u>DAKOTA SS</u>		<u>5</u>	
Lithology: <u>SANDSTONE</u>		Origin: <u>MARINE</u>		Aquifer Thickness: <u>12</u> ft	
Length of well open to: <u>2</u> ft		Depth to top of: <u>12</u> ft			
MINOR AQUIFER: _____		aquifer, formation, group		Thickness: _____ ft	
Lithology: _____		Origin: _____		Aquifer Thickness: _____ ft	
Length of well open to: _____ ft		Depth to top of: _____ ft			
Intervals Screened: <u>OPEN HOLE 138-218</u>		Depth to consolidated rock: <u>6.8</u> ft		Source of data: <u>SAMPLES</u>	
Depth to basement: _____ ft		Source of data: _____			
Surficial material: <u>SANDY TILL</u>		Infiltration characteristic: <u>POOR</u>			
Coefficient of storage: _____		Coefficient of storage: _____			
Coefficient of permeability: _____		Coefficient of storage: _____			
Perm: _____		Spec cap: <u>250</u> gpd/ft		Number of geologic cards: _____	

