Iowa Department of Natural Resources Geological Survey Bureau
109 Trowbridge Hall Iowa City, Ia. 52242-1319 PH (319) 335-1575

WELL RECORD

#36698

Permit No. _____

Site identification

Property Owner City of Garwin Well Number New Well

Address Garwin, Iowa

Tenant _____

Well Depth 472 ft Date Completed 7 / 10 / 95

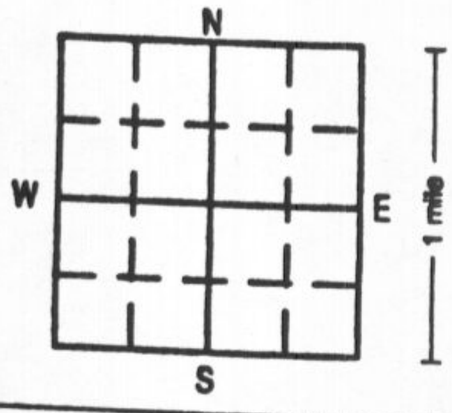
Location

County TAMA

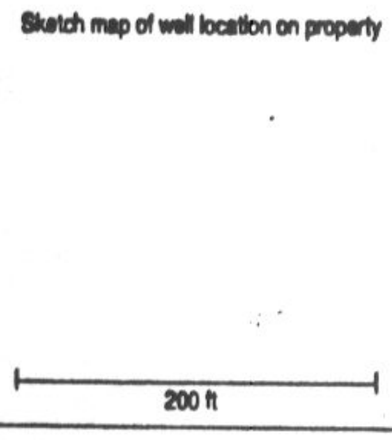
____mi. N/S and ____mi. E/W of intersection of _____ and _____

____1/4 of the ____1/4 of the ____1/4 of Sec ____ TWP ____ RNG ____ E/W

Show exact location of well in section grid with a dot (●).



Sketch map of well location on property



☐ upland ☐ hillside ☐ valley Elevation (if known) _____

Formation log

From	To	Color	Hardness	Formation description
0	5			Topsoil
5	23			clay, yellow, sandy
23	32			clay, grey, soft
32	43			clay, yellow, sandy
43	60			clay, grey
60	63			clay, yellow
63	103			clay, blue
103	145			shale
145	161			Limestone, soft
161	168			Limestone
168	178			Limestone
178	200			Limestone, shale streaks
200	245			Limestone
245	255			Shale gray
255	290			Limestone
290	293			shale
293	312			Limestone
312	316			Shale
316	322			Limestone
				use additional sheets as needed

Remarks (including depth of lost drilling fluids, materials, or tools)

D2

Well use

☐ Domestic ☐ Livestock ☐ Test Well
☑ Municipal ☐ Public Supply ☐ Irrigation
☐ Industrial ☐ Monitoring ☐ Other _____ (explain)

Drill method

☐ rotary ☐ auger ☐ cable other _____

Hole size

16 inch from 0 ft to 200 ft
8 inch from 200 ft to 472 ft

hole size continued
___ inch from ____ ft to ____ ft
___ inch from ____ ft to ____ ft

Record all depth measurements from ground level (GL). Use (+) for above GL measurements.

Casing

Size (ID/OD)	Type / Wt	Drive shoe (yes/no)	Depth top	Pitless adaptor (yes/no)	Depth bottom	Amount (length)
12" O.D			2'		200'	202'

Perforated or slotted casing? (yes / no)

Perforated / slotted from _____ ft to _____ ft
Perforated / slotted from _____ ft to _____ ft

Casing grouted? (yes / no)

Type	Depth Top	Depth Bottom	Amount
Neat cement	0'	200'	8 yds

Well screen? (yes / no)

Diameter	Slot size	Depth Top	Depth Bottom	Length	Material

Bottom capped (yes / no) with _____
Seals / Packers (yes / no) kind _____ depth _____ ft
Gravel packed (yes / no) from _____ ft to _____ ft
type _____ amount _____

Well developed? (yes / no)

Explain Surge pumping

Pump installed? (yes / no) Date ____ / ____ / ____

Installer's name _____
Type of pump _____ Depth to intake _____ ft
Pump diameter _____ Rated capacity _____ GPM

Water Information

Aquifer: ☐ sand/gravel ☑ limestone ☐ sandstone
Main water-supply zone from 200 ft to 472 ft
Final water level (static water level) 60 ft (below / above) GL.
Pumping water level 75 ft below GL; ☐ tape ☑ airline ☐ E-line
At yield of 280 GPM; ☑ orifice ☐ volumetric ☐ estimate Date _____

Water quality test? (yes / no) Date tested ____ / ____ / ____

Tested by _____
Test results _____

Contractor Layne-Western
Address North Liberty, Iowa
Driller Gary McCracken Certification no. 40285

white copy - Iowa DNR, Geological Survey Bureau blue copy - Well Contractor pink copy - Customer yellow copy - County Health Officer

Iowa Department of Natural Resources Geological Survey Bureau
109 Trowbridge Hall Iowa City, Ia. 52242-1319 PH (319) 335-1575

WELL RECORD

Permit No. ______________

Site Identification

Property Owner ____________________ Well Number ________

Address ____________________

Tenant ____________________

Well Depth __________ ft Date Completed _____/_____/_____

Location

County ____________________

____mi. N/S and ____mi. E/W of intersection of __________ and __________

____1/4 of the ____1/4 of the ____1/4 of Sec____ TWP____ RNG____ E/W

Show exact location of well in section grid with a dot (●).

N / W / E / S — 1 mile

Sketch map of well location on property — N — 200 ft

☐ upland ☐ hillside ☐ valley Elevation (if known) __________

Formation log

From	To	Color	Hardness	Formation description
322	325			Limestone, shale
325	350			Limestone
350	375			Limestone, shale
375	386			Shale
386	430			Limestone, Hard Rock
430	441			Limestone, TAN
441	472			Limestone, gray

use additional sheets as needed

Drill method

☐ rotary ☐ auger ☐ cable other __________

Hole size

____ inch from __0__ ft to ______ ft

____ inch from ______ ft to ______ ft

hole size continued

____ inch from ______ ft to ______ ft

____ inch from ______ ft to ______ ft

Record all depth measurements from ground level (GL). Use (+) for above GL measurements.

Casing

Drive shoe (yes / no) Pitless adaptor (yes / no)

Size (ID/OD)	Type / Wt	Depth top	Depth bottom	Amount (length)

Perforated or slotted casing? (yes / no)

Perforated / slotted from __________ ft to __________ ft

Perforated / slotted from __________ ft to __________ ft

Casing grouted? (yes / no)

Type	Depth Top	Depth Bottom	Amount

Well screen? (yes / no)

Diameter	Slot size	Depth Top	Depth Bottom	Length	Material

Bottom capped (yes / no) with ____________________

Seals / Packers (yes / no) kind __________ depth __________ ft

Gravel packed (yes / no) from __________ ft to __________ ft

type __________ amount __________

Well developed? (yes / no)

Explain ____________________

Pump installed? (yes / no)

Date _____/_____/_____

Installer's name ____________________

Type of pump __________ Depth to intake __________ ft

Pump diameter __________ Rated capacity __________ GPM

Water information

Aquifer: ☐ sand/gravel ☐ limestone ☐ sandstone

Main water-supply zone from ______ ft to ______ ft

Final water level (static water level) ______ ft (below / above) GL.

Pumping water level ______ ft below GL; ☐ tape ☐ airline ☐ E-line

At yield of _____ GPM; ☐ orifice ☐ volumetric ☐ estimate Date __________

Water quality test? (yes / no)

Date tested _____/_____/_____

Tested by ____________________

Test results ____________________

Remarks (including depth of lost drilling fluids, materials, or tools)

Well use

☐ Domestic ☐ Municipal ☐ Industrial
☐ Livestock ☐ Public Supply ☐ Monitoring
☐ Test Well ☐ Irrigation ☐ Other __________ (explain)

Contractor ____________________

Address ____________________

Driller ____________________ Certification no. __________