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

WELL RECORD 56561

(1)

Permit No. _____

Site identification

Property Owner Midwest Grain Well Number 1
Address Lakota
Tenant Ethanol Plant
Well Depth 187 ft Date completed ____/____/____

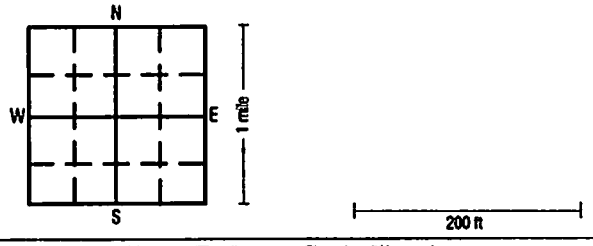
Location

County Kossuth

____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	3	Brown yellow	S	Fill
3	11	yellow	S	Sandy clay
11	65	Blue	S	Clay
65	69	colored	S	Sand & Gravel
69	71	light brown	MH	Limestone
71	76	gray	S/MH	Shale/Dolimite
76	82	gray	MH	Dolimite
82	98	gray brown	MH	Dolimite
98	100	light brown	MH	Dolimite
100	101	green	MH/S	Limestone/Strip shale
101	102	white	MH	Limestone
102	104	light brown	MH	Limestone
104	105	green white	S/MH	Limestone/Shale
105	107	light gray	MH	Limestone
107	110	green gray	MH/S	Limestone/Shale
110	112	white	MH	Limestone
112	114	Brown	MH	Limestone

use additional sheets as needed

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

Well use

☒ Domestic ☐ Municipal ☐ Commercial
☐ Livestock ☒ Public supply ☐ Monitoring
☐ Test well ☐ Irrigation ☐ Other _____ (explain)

Drill method

☒ rotary ☐ auger ☐ cable other _____

Hole size

15 inch from 0 ft to 120 ft
____ inch from ____ ft to ____ ft

hole size continued
9 7/8 inch from 119 ft to 187 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 adapter (yes / no)

Size (ID/OD)	Type / Wt	Depth top	Depth bottom	Amount (length)
10"	Steel	+2	119	121

Perforated or slotted casing? (yes / no)

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

Casing grouted? (yes / no) Placement method _____

Type	Depth Top	Depth bottom	Amount (vol/wt)

Well screen? (yes / no)

Diameter	Slot size	Depth Top	Depth Bottom	Length	Material
	0.___				
	0.___				

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 _____
(pumped, airlifted, bailed) for 1 hrs at 1000 GPM.

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 151 ft to 185 ft ☐ seepage well
Static water level 3'3" ft (below / above) GL; ☐ tape ☐ airline ☐ E-line ☐ estimate
Pumping water level 26 ft below GL; ☐ tape ☐ airline ☐ E-line ☐ estimate
At yield of 1000 GPM; ☐ orifice ☐ volumetric ☒ estimate
Measurements taken at ____:____ (AM / PM) Date ____/____/____

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

Tested by _____

Contractor Schumacher Well Drilling
Address 221 Slagle Dr. Algona Ia 50511
Driller Jeremy Walker Certification no. 40660

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

(2)

Iowa Department of Natural Resources Geological Survey Bureau
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WELL RECORD

56561 Permit No. _____

Site identification

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Address Lakota
Tenant Ethanol Plant - [redacted]
Well Depth _____ ft Date completed ____/____/____

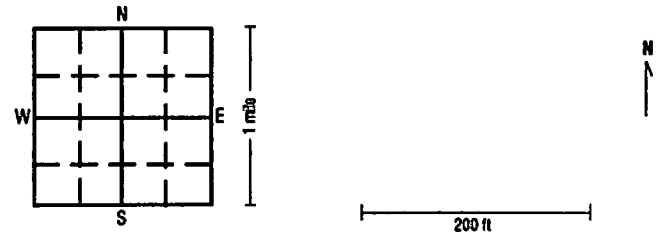
Location

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 (●). Sketch map of well location on property.



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

Formation log

From	To	Color	Hardness	Formation description
114	115	gray	MH/S	limestone - shale
115	119	White	MH	limestone strips shale S
119	122	gray White	MH	dolomite
122	130	White	MH	limestone
130	131	White	S	Shale
131	143	White	MH	limestone little water
143	149	Tan	Softer	limestone
149	151	Tan	MH	dolomite
151	153	gray White	MH S	sandstone water - shale
153	154	White	MH	limestone
154	160	White Tan	MH S	Sandstone - shale
160	165	White Tan	MH	dolomite
165	169	white	MH	Limestone
169	174	white	MH	Dolimite ?ironpirite
174	185	white	MH	Limestone

use additional sheets as needed

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

Well use

☐ Domestic ☐ Municipal ☐ Commercial
☐ Livestock ☒ Public supply ☐ Monitoring
☐ Test well ☐ Irrigation ☐ Other _____ (explain)

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 adapter (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
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Casing grouted? (yes / no)

Placement method _____

Type	Depth Top	Depth bottom	Amount (vol/wt)

Well screen? (yes / no)

Diameter	Slot size	Depth Top	Depth Bottom	Length	Material
	0.___				
	0.___				

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 _____
(pumped, airlifted, bailed) for _____ hrs at _____ GPM.

Pump installed? (yes / no)

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

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Static water level _____ ft (below / above) GL; ☐ tape ☐ airline ☐ E-line ☐ estimate
Pumping water level _____ ft below GL; ☐ tape ☐ airline ☐ E-line ☐ estimate
At yield of _____ GPM; ☐ orifice ☐ volumetric ☐ estimate
Measurements taken at ____:____ (AM / PM) Date ____/____/____

Water quality test? (yes / no)

Date tested ____/____/____
Tested by _____

Contractor _____
Address _____
Driller _____ Certification no. _____

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

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