

## WELL RECORD

94293

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

PWTS Well No.:

PWTS Permit No.

County Permit No.

## Site Identification

Property Owner LAKE PANORAMA ASSOCIATION, ID: Well #5

Address XXXX WEST RV ROAD, PANORA, IA 50216

Tenant

Well Depth: 2450 ft Date Completed: 5/22/2020

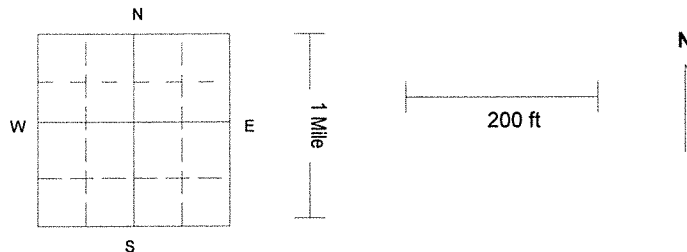
Location County GUTHRIE COUNTY IOWA

mi.<sup>N</sup><sub>S</sub> and mi.<sup>E</sup><sub>W</sub> of intersection of \_\_\_\_\_ and \_\_\_\_\_  
1/4 of the 1/4 of the 1/4 of Sec TW RN E W

GPS Coordinates (NAD83 datum only) decimal degrees:

41.709700 N. Latitude -94.417528 W. Longitude

Show exact location of well in section grid with a dot (+). sketch map of well location on property.

Drill Method ☒ rotary ☐ auger ☐ cable other \_\_\_\_\_

## Hole Size

30 inch fro 0 ft to 50 ft 15 inch from 425 ft to 2095 ft  
22 inch fro 50 ft to 425 ft 9.88 inch from 2095 ft to 2450 ft

Casing Placement Method: HALLIBURTON ☒ Drive shoe ☐ Plu

Size (ID/OD)	Type/Wt	Depth top	Depth bottom	Amount (length)
16 OD	STEEL SCH40/.375	0	425	425
10 ID S	TAINLESS 304 SCH40/.305	0	2095	2095

## Perforated or Slotted Casing

☐ Perforated ☐ Slotted from \_\_\_\_\_ ft to \_\_\_\_\_ ft  
☐ Perforated ☐ Slotted from \_\_\_\_\_ ft to \_\_\_\_\_ ft

Casing Grouted ☒ Grouted

Type	Depth top	Depth bottom	Amount (vol/wt)
NEAT CEMENT	0	425	537 CU/FT
NEAT CEMENT	0	2095	1555 CU/FT

Well Screen ☐ Screen

Diameter	Slot size	Depth top	Depth bottom	Length	Material

Bottom Capped ☐ with \_\_\_\_\_  
Packers ☐ kind \_\_\_\_\_ depth \_\_\_\_\_ ft  
Seals ☐ kind \_\_\_\_\_ depth \_\_\_\_\_ ft  
Gravel packed ☐ from \_\_\_\_\_ to \_\_\_\_\_ ft  
type \_\_\_\_\_ amount \_\_\_\_\_

Well Developed ☒ Well Developed

Explain WITH AIR

☐ pumped ☒ airlifted ☐ bailed for 4 hrs at \_\_\_\_\_ GPMPump Installed ☐ Pump Installed Date \_\_\_\_\_

Type of Pump \_\_\_\_\_ Depth to Intake \_\_\_\_\_ ft  
Pump diameter \_\_\_\_\_ Rated Capacity \_\_\_\_\_ GPM

Water information ☐ Sand/gravel ☒ Limestone ☐ Sandstone  
Main Water-Supply Zone 1 from \_\_\_\_\_ ft to \_\_\_\_\_ ft ☐ Seepage Well  
Main Water-Supply Zone 2 from \_\_\_\_\_ ft to \_\_\_\_\_ ft  
Static water level 434 ft (below/above) GL ☐ tape ☐ airline ☐ E-line ☒ estimate  
Pump water level \_\_\_\_\_ ft (below )GL; ☐ tape ☐ airline ☐ E-line ☒ estimate  
At yield of \_\_\_\_\_ GPM ☐ Orifice ☐ Volumetric ☒ Estimate for 4 hours  
Measurement taken at 4:00:00 PM Date 5/22/2020

Water quality test? ☐ Date \_\_\_\_\_

Tested by \_\_\_\_\_

Contractor Name GINGERICH WELL PUMP SERVICE, LLC

Address 1331 HWY 1, KALONA, IA 52247

Driller KLINT GINGERICH Certification No. 2639

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

LOST CIRCULATION AT 950', PUMPED 1000 CU/FT OF NEAT CEMENT TO SEAL

## Well Use

☐ Heat Pump ☒ Commerical  
☐ Domestic ☐ Municipal ☐ Monitoring  
☐ Livestock ☐ Public Supply ☐ Other \_\_\_\_\_  
☐ Test Well ☐ Irrigation \_\_\_\_\_

## Lake Panorama Formation Log

0	25 BROWN	TOP SOIL/CLAY
25	55 BLUE/BLACK	CLAY
55	100 GRAY	MIX/SHALE/CLAY
100	400 GRAY/BLACK	SHALE MIX
400	530 WHITE	LIMESTONE
530	630 BROWN	LIMESTONE
630	640 WHITE	LIMESTONE
640	650 GRAY	SHALE
650	680 GRAY	LIMESTONE
680	710 GRAY	SHALE
710	755 WHITE	LIMESTONE
755	860 BROWN	LIMESTONE
860	880 GRAY	SHALE
880	890 RED	SHALE
890	910 GRAY	SHALE/DOLOMITE
910	915 RED	SHALE/DOLOMITE
915	935 GRAY	SHALE/DOLOMITE
935	945 TAN/GRAY	LIMESTONE
945	980 LOST CIRCULATION (NO SAMPLE)	
980	1025 GREEN	SHALE
1025	1035 GRAY	LIMESTONE
1035	1085 BROWN	LIMESTONE
1085	1145 GRAY/WHITE	SHALE
1145	1150 TAN/GRAY	LIMESTONE
1150	1165 WHITE/GRAY	SHALE
1165	1300 BROWN	LIMESTONE
1300	1305 WHITE	SHALE
1305	1320 TAN/BROWN	LIMESTONE
1320	1325 GRAY	SHALE/DOLOMITE
1325	1330 WHITE	SHALE
1330	1340 BROWN	LIMESTONE
1340	1350 WHITE/GRAY	SHALE
1350	1475 GRAY/TAN	LIMESTONE
1475	1525 TAN	LIMESTONE
1525	1550 GRAY	LIMESTONE
1550	1595 BROWN	SHALE
1595	1685 TAN	LIMESTONE
1685	1800 BROWN	LIMESTONE
1800	1900 TAN/GRAY	LIMESTONE
1900	1930 GRAY	SHALE/LIMESTONE MIX
1930	2000 GRAY	SHALE
2000	2030 WHITE	SANDSTONE
2030	2110 TAN/WHITE	LIMESTONE/SANDSTONE MIX
2110	2290 DARK TAN	LIMESTONE
2290	2320 GRAY	LIMESTONE
2320	2350 GRAY/TAN	LIMESTONE
2350	2370 WHITE	SANDSTONE
2370	2450 GRAY	LIMESTONE