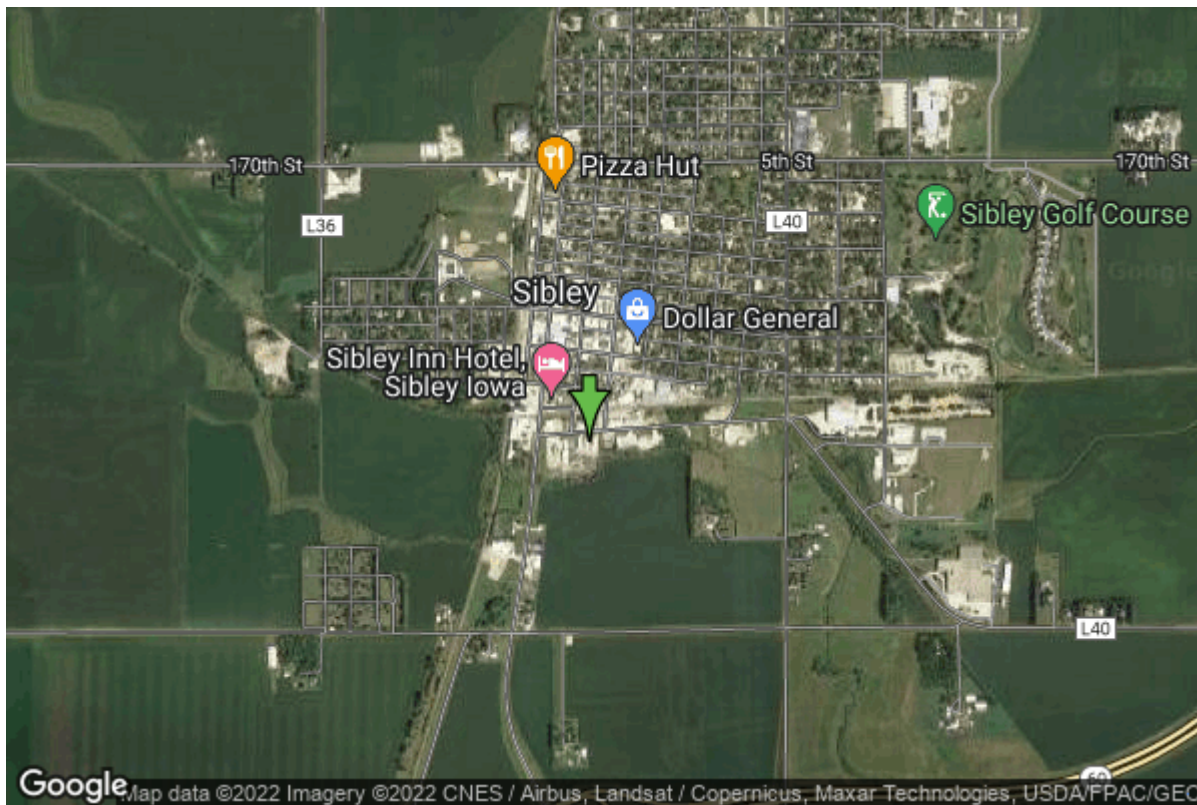


# Well W#12223 Information



<b>Date Received</b>		<b>State</b>	Iowa
<b>Owner Name</b>	Sibley, City Of	<b>County</b>	Osceola
<b>Alt Name</b>	#3	<b>Quadrangle</b>	Sibley East, Iowa
<b>WNumber</b>	12223	<b>Township</b>	T99N
<b>PWTS ID</b>	0	<b>Range</b>	R42W
<b>PWS ID</b>	7245047	<b>Section</b>	13
<b>Storet ID</b>	0	<b>Quarter</b>	SE NW NW
<b>SDWIS ID</b>	2407844	<b>Latitude</b>	43.3953100000
<b>USGS ID</b>	0	<b>Longitude</b>	-95.7494900000
<b>Project</b>	Source Water Protection	<b>Accuracy</b>	
<b>Operator</b>	Unknown	<b>UTM X</b>	277331
		<b>UTM Y</b>	4808387

<b>Site Type</b>	Drilled hole	<b>Drilling Company</b>	Varner Well Co.
<b>Well Status</b>	Not Used	<b>Drilling Date</b>	08/16/1960
<b>Field Located</b>	No	<b>Drilling Method</b>	Rotary
<b>Elevation</b>	1497 ft	<b>Bedrock Depth</b>	0 ft
<b>Elevation Accuracy</b>	Digital Elevation Model Accurate to 5 ft	<b>Well Depth</b>	740 ft
<b>Landscape Position</b>	Unknown	<b>Total Depth</b>	740 ft
		<b>Well Types</b>	Municipal, Public Supply
		<b>Aquifers</b>	Dakota/Cretaceous

## Casing Construction Information

<b>Date</b>	08/16/1960	<b>Casing Type</b>	Steel
<b>Start Depth</b>	0.00 ft	<b>End Depth</b>	0.00 ft

<b>Diameter</b>	26.00 in	<b>Amount</b>	337.00 ft
<b>Comments</b>			

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<b>Date</b>	08/16/1960	<b>Casing Type</b>	Steel
<b>Start Depth</b>	0.00 ft	<b>End Depth</b>	447.00 ft
<b>Diameter</b>	12.00 in	<b>Amount</b>	447.00 ft
<b>Comments</b>			

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<b>Date</b>	08/16/1960	<b>Casing Type</b>	Steel
<b>Start Depth</b>	447.00 ft	<b>End Depth</b>	634.00 ft
<b>Diameter</b>	10.00 in	<b>Amount</b>	0.00 ft
<b>Comments</b>			

## Screen Construction Information

<b>Date</b>	08/16/1960		
<b>Screen Type</b>	Steel	<b>Slot Size</b>	0.00
<b>Start Depth</b>	634.00 ft	<b>End Depth</b>	734.00 ft
<b>Diameter</b>	10.00 in	<b>Amount</b>	0 ft
<b>Comments</b>			

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<b>Date</b>	08/16/1960		
<b>Screen Type</b>	Steel	<b>Slot Size</b>	0.00
<b>Start Depth</b>	0.00 ft	<b>End Depth</b>	0.00 ft
<b>Diameter</b>	0.00 in	<b>Amount</b>	0 ft
<b>Comments</b>			

## Grout Construction Information

<b>Date</b>	08/16/1960		
<b>Grout Type</b>	Cement	<b>Grout Placement</b>	Unknown
<b>Start Depth</b>	0.00 ft	<b>End Depth</b>	614.00 ft
<b>Comments</b>			

## Gravel Pack Construction Information

<b>Date</b>	08/16/1960		
<b>Gravel Pack Type</b>	Unknown	<b>Slot Size</b>	
<b>Start Depth</b>	614.00 ft	<b>End Depth</b>	734.00 ft
<b>Comments</b>			

## Log Information

<b>Date</b>	
<b>Log Types</b>	Strip log

**Prepared By** Unknown  
**Comments**

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**Date**  
**Log Types** Drillers log  
**Prepared By** Sibley, City Of  
**Comments**

## Stratigraphy Information

**System** Quaternary  
**Series** Pleistocene Series  
**Group** Wisconsinan Episode  
**Formation** Sheldon Creek  
**Member**  
**Submember**  
**Start Depth** 0.00 ft **End Depth** 10.00 ft  
**Contact Accuracy**  
**Penetration**  
**Primary Lithology** Till - Oxidized And Unleached **Percent** 50  
**Secondary Lithology** Soil Or Fill **Percent** 50  
**Tertiary Lithology** Unknown **Percent** 0  
**Comments**

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**System** Quaternary  
**Series** Pleistocene Series  
**Group** Wisconsinan Episode  
**Formation** Sheldon Creek  
**Member**  
**Submember**  
**Start Depth** 10.00 ft **End Depth** 55.00 ft  
**Contact Accuracy**  
**Penetration**  
**Primary Lithology** Till - Unoxidized And Unleached **Percent** 100  
**Secondary Lithology** **Percent**  
**Tertiary Lithology** **Percent**  
**Comments**

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**System** Quaternary  
**Series** Pleistocene Series  
**Group** Wisconsinan Episode  
**Formation** Sheldon Creek  
**Member**  
**Submember**  
**Start Depth** 55.00 ft **End Depth** 60.00 ft  
**Contact Accuracy**

<b>Penetration</b>			
<b>Primary Lithology</b>	Sand And Gravel	<b>Percent</b>	100
<b>Secondary Lithology</b>		<b>Percent</b>	
<b>Tertiary Lithology</b>		<b>Percent</b>	
<b>Comments</b>			
<b>System</b>	Quaternary		
<b>Series</b>	Pleistocene Series		
<b>Group</b>	Pre-Illinoian		
<b>Formation</b>			
<b>Member</b>			
<b>Submember</b>			
<b>Start Depth</b>	60.00 ft	<b>End Depth</b>	125.00 ft
<b>Contact Accuracy</b>			
<b>Penetration</b>			
<b>Primary Lithology</b>	Till - Unoxidized And Unleached	<b>Percent</b>	100
<b>Secondary Lithology</b>		<b>Percent</b>	
<b>Tertiary Lithology</b>		<b>Percent</b>	
<b>Comments</b>			
<b>System</b>	Quaternary		
<b>Series</b>	Pleistocene Series		
<b>Group</b>	Pre-Illinoian		
<b>Formation</b>			
<b>Member</b>			
<b>Submember</b>			
<b>Start Depth</b>	125.00 ft	<b>End Depth</b>	140.00 ft
<b>Contact Accuracy</b>			
<b>Penetration</b>			
<b>Primary Lithology</b>	Sand And Gravel	<b>Percent</b>	100
<b>Secondary Lithology</b>		<b>Percent</b>	
<b>Tertiary Lithology</b>		<b>Percent</b>	
<b>Comments</b>			
<b>System</b>	Quaternary		
<b>Series</b>	Pleistocene Series		
<b>Group</b>	Pre-Illinoian		
<b>Formation</b>			
<b>Member</b>			
<b>Submember</b>			
<b>Start Depth</b>	140.00 ft	<b>End Depth</b>	200.00 ft
<b>Contact Accuracy</b>			
<b>Penetration</b>			
<b>Primary Lithology</b>	Till - Unoxidized And Unleached	<b>Percent</b>	100
<b>Secondary Lithology</b>		<b>Percent</b>	
<b>Tertiary Lithology</b>		<b>Percent</b>	
<b>Comments</b>			

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<b>System</b>	Quaternary		
<b>Series</b>	Pleistocene Series		
<b>Group</b>	Pre-Illinoian		
<b>Formation</b>			
<b>Member</b>			
<b>Submember</b>			
<b>Start Depth</b>	200.00 ft	<b>End Depth</b>	225.00 ft
<b>Contact Accuracy</b>			
<b>Penetration</b>			
<b>Primary Lithology</b>	Till - Oxidized And Unleached	<b>Percent</b>	100
<b>Secondary Lithology</b>	Unknown	<b>Percent</b>	0
<b>Tertiary Lithology</b>	Unknown	<b>Percent</b>	0
<b>Comments</b>			

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<b>System</b>	Quaternary		
<b>Series</b>	Pleistocene Series		
<b>Group</b>	Pre-Illinoian		
<b>Formation</b>			
<b>Member</b>			
<b>Submember</b>			
<b>Start Depth</b>	225.00 ft	<b>End Depth</b>	260.00 ft
<b>Contact Accuracy</b>			
<b>Penetration</b>			
<b>Primary Lithology</b>	Till - Unoxidized And Unleached	<b>Percent</b>	65
<b>Secondary Lithology</b>	Till - Oxidized And Unleached	<b>Percent</b>	35
<b>Tertiary Lithology</b>		<b>Percent</b>	
<b>Comments</b>			

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<b>System</b>	Quaternary		
<b>Series</b>	Pleistocene Series		
<b>Group</b>	Pre-Illinoian		
<b>Formation</b>			
<b>Member</b>			
<b>Submember</b>			
<b>Start Depth</b>	260.00 ft	<b>End Depth</b>	295.00 ft
<b>Contact Accuracy</b>			
<b>Penetration</b>			
<b>Primary Lithology</b>	Till - Unoxidized And Unleached	<b>Percent</b>	100
<b>Secondary Lithology</b>		<b>Percent</b>	
<b>Tertiary Lithology</b>		<b>Percent</b>	
<b>Comments</b>			

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<b>System</b>	Quaternary		
<b>Series</b>	Pleistocene Series		

<b>Group</b>	Pre-Illinoian		
<b>Formation</b>			
<b>Member</b>			
<b>Submember</b>			
<b>Start Depth</b>	295.00 ft	<b>End Depth</b>	300.00 ft
<b>Contact Accuracy</b>			
<b>Penetration</b>			
<b>Primary Lithology</b>	Till - Unoxidized And Unleached	<b>Percent</b>	70
<b>Secondary Lithology</b>	Till - Oxidized And Unleached	<b>Percent</b>	30
<b>Tertiary Lithology</b>		<b>Percent</b>	
<b>Comments</b>			
<b>System</b>	Quaternary		
<b>Series</b>	Pleistocene Series		
<b>Group</b>	Pre-Illinoian		
<b>Formation</b>			
<b>Member</b>			
<b>Submember</b>			
<b>Start Depth</b>	300.00 ft	<b>End Depth</b>	320.00 ft
<b>Contact Accuracy</b>			
<b>Penetration</b>			
<b>Primary Lithology</b>	Till - Unoxidized And Unleached	<b>Percent</b>	100
<b>Secondary Lithology</b>		<b>Percent</b>	
<b>Tertiary Lithology</b>		<b>Percent</b>	
<b>Comments</b>			
<b>System</b>	Quaternary		
<b>Series</b>	Pleistocene Series		
<b>Group</b>	Pre-Illinoian		
<b>Formation</b>			
<b>Member</b>			
<b>Submember</b>			
<b>Start Depth</b>	320.00 ft	<b>End Depth</b>	325.00 ft
<b>Contact Accuracy</b>			
<b>Penetration</b>			
<b>Primary Lithology</b>	Till - Unoxidized And Unleached	<b>Percent</b>	60
<b>Secondary Lithology</b>	Till - Oxidized And Unleached	<b>Percent</b>	40
<b>Tertiary Lithology</b>		<b>Percent</b>	
<b>Comments</b>			
<b>System</b>	Quaternary		
<b>Series</b>	Pleistocene Series		
<b>Group</b>	Pre-Illinoian		
<b>Formation</b>			

<b>Member</b>			
<b>Submember</b>			
<b>Start Depth</b>	325.00 ft	<b>End Depth</b>	345.00 ft
<b>Contact Accuracy Penetration</b>			
<b>Primary Lithology</b>	Till - Unoxidized And Unleached	<b>Percent</b>	100
<b>Secondary Lithology</b>		<b>Percent</b>	
<b>Tertiary Lithology</b>		<b>Percent</b>	
<b>Comments</b>			

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<b>System</b>	Quaternary		
<b>Series</b>	Pleistocene Series		
<b>Group</b>	Pre-Illinoian		
<b>Formation</b>			
<b>Member</b>			
<b>Submember</b>			
<b>Start Depth</b>	345.00 ft	<b>End Depth</b>	350.00 ft
<b>Contact Accuracy Penetration</b>			
<b>Primary Lithology</b>	Till - Unoxidized And Unleached	<b>Percent</b>	80
<b>Secondary Lithology</b>	Till - Oxidized And Unleached	<b>Percent</b>	20
<b>Tertiary Lithology</b>		<b>Percent</b>	
<b>Comments</b>			

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<b>System</b>	Quaternary		
<b>Series</b>	Pleistocene Series		
<b>Group</b>	Pre-Illinoian		
<b>Formation</b>			
<b>Member</b>			
<b>Submember</b>			
<b>Start Depth</b>	350.00 ft	<b>End Depth</b>	355.00 ft
<b>Contact Accuracy Penetration</b>			
<b>Primary Lithology</b>	Till - Unoxidized And Unleached	<b>Percent</b>	100
<b>Secondary Lithology</b>		<b>Percent</b>	
<b>Tertiary Lithology</b>		<b>Percent</b>	
<b>Comments</b>			

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<b>System</b>	Quaternary		
<b>Series</b>	Pleistocene Series		
<b>Group</b>	Pre-Illinoian		
<b>Formation</b>			
<b>Member</b>			
<b>Submember</b>			
<b>Start Depth</b>	355.00 ft	<b>End Depth</b>	370.00 ft

<b>Contact Accuracy Penetration</b>			
<b>Primary Lithology</b>	Till - Unoxidized And Unleached	<b>Percent</b>	60
<b>Secondary Lithology</b>	Till - Oxidized And Unleached	<b>Percent</b>	40
<b>Tertiary Lithology</b>		<b>Percent</b>	
<b>Comments</b>			
<b>System Series</b>	Quaternary Pleistocene Series		
<b>Group Formation</b>	Pre-Illinoian		
<b>Member</b>			
<b>Submember</b>			
<b>Start Depth</b>	370.00 ft	<b>End Depth</b>	380.00 ft
<b>Contact Accuracy Penetration</b>			
<b>Primary Lithology</b>	Till - Unoxidized And Unleached	<b>Percent</b>	100
<b>Secondary Lithology</b>		<b>Percent</b>	
<b>Tertiary Lithology</b>		<b>Percent</b>	
<b>Comments</b>			
<b>System Series</b>	Cretaceous		
<b>Group Formation</b>	Fort Benton ("Lower Colorado ") Dakota		
<b>Member</b>	Woodbury		
<b>Submember</b>			
<b>Start Depth</b>	380.00 ft	<b>End Depth</b>	560.00 ft
<b>Contact Accuracy Penetration</b>			
<b>Primary Lithology</b>	Sandstone	<b>Percent</b>	0
<b>Secondary Lithology</b>	Shale	<b>Percent</b>	0
<b>Tertiary Lithology</b>	Unknown	<b>Percent</b>	0
<b>Comments</b>			
<b>System Series</b>	Cretaceous		
<b>Group Formation</b>	Fort Benton ("Lower Colorado ") Dakota		
<b>Member</b>	Nishnabotna		
<b>Submember</b>			
<b>Start Depth</b>	560.00 ft	<b>End Depth</b>	705.00 ft
<b>Contact Accuracy Penetration</b>			
<b>Primary Lithology</b>	Sandstone	<b>Percent</b>	0
<b>Secondary Lithology</b>	Shale	<b>Percent</b>	0



<b>Tertiary Lithology</b>		<b>Percent</b>	
<b>Comments</b>			
<hr/>			
<b>System</b>	Cambrian		
<b>Series</b>			
<b>Group</b>			
<b>Formation</b>			
<b>Member</b>			
<b>Submember</b>			
<b>Start Depth</b>	705.00 ft	<b>End Depth</b>	740.00 ft
<b>Contact Accuracy</b>			
<b>Penetration</b>			
<b>Primary Lithology</b>	Sandstone	<b>Percent</b>	100
<b>Secondary Lithology</b>		<b>Percent</b>	
<b>Tertiary Lithology</b>		<b>Percent</b>	
<b>Comments</b>			

## Water Production Information

<b>Date</b>	08/16/1960	<b>Start Time</b>	
<b>Aquifer</b>	Unknown		
<b>Static Water Level</b>	280.00 ft	<b>Yield</b>	500 gallons per minute
<b>Pumping Water Level</b>	310 ft	<b>Yield Method</b>	Unknown
<b>Measurement</b>	Unknown	<b>Pump Test</b>	Yes
<b>Pump Method</b>	Unknown	<b>Duration</b>	0 mins
<b>Comments</b>			

## Chip Storage Information

<b>Date</b>	07/29/1960		
<b>Storage</b>	TL2-26,27	<b>Bin</b>	
<b>Number of Boxes</b>	2	<b>Number of Samples</b>	149
<b>Sample Intervals</b>	5	<b>Sample Gaps</b>	15-20
<b>Sample Top</b>	0 ft	<b>Sample Bottom</b>	740 ft
<b>Washed Top</b>	465 ft	<b>Washed Bottom</b>	740 ft
<b>Duplicate Storage</b>			
<b>Comments</b>			

<https://www.iuhr.uiowa.edu/igs/geosam/well/12223/general-information>