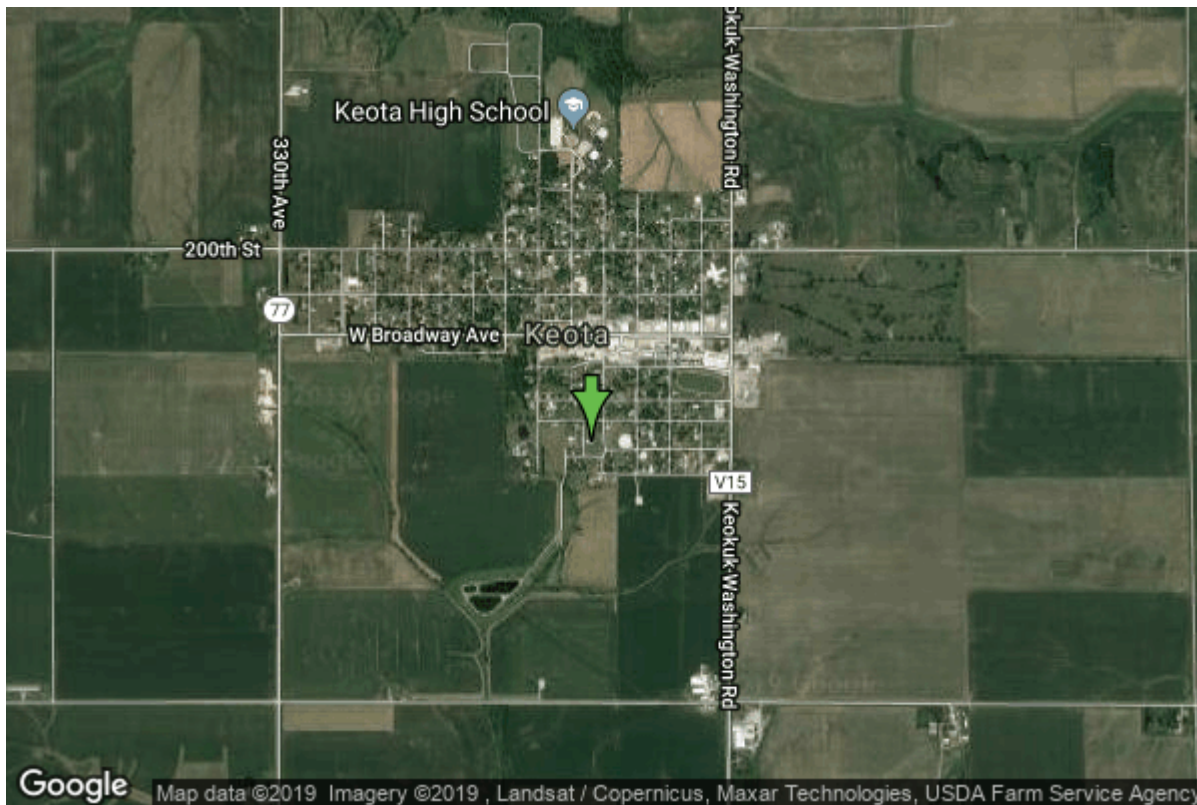


# Well W#11764 Information



<b>Date Received</b>		<b>State</b>	Iowa
<b>Owner Name</b>	Keota, City Of	<b>County</b>	Keokuk
<b>Alt Name</b>	#3	<b>Quadrangle</b>	Keota, Iowa
<b>WNumber</b>	11764	<b>Township</b>	T76N
<b>PWTS ID</b>	0	<b>Range</b>	R10W
<b>PWS ID</b>	5440028	<b>Section</b>	25
<b>Storet ID</b>	0	<b>Quarter</b>	NE SW SE
<b>SDWIS ID</b>	2412954	<b>Latitude</b>	41.3604520000
<b>USGS ID</b>	0	<b>Longitude</b>	-91.9520250000
<b>Project</b>	Source Water Protection	<b>Accuracy</b>	
<b>Operator</b>	Unknown	<b>UTM X</b>	587655
		<b>UTM Y</b>	4579302

<b>Site Type</b>	Drilled hole	<b>Drilling Company</b>	Thorpe Well Co.
<b>Well Status</b>	Active	<b>Drilling Date</b>	02/20/1960
<b>Field Located</b>	No	<b>Drilling Method</b>	Rotary
<b>Elevation</b>	789 ft	<b>Bedrock Depth</b>	55 ft
<b>Elevation Accuracy</b>	Digital Elevation Model Accurate to 5 ft	<b>Well Depth</b>	1558 ft
<b>Landscape Position</b>	Unknown	<b>Total Depth</b>	1558 ft
		<b>Well Types</b>	Municipal, Public Supply
		<b>Aquifers</b>	Cambrian-Ordovician

## Casing Construction Information

<b>Date</b>	12/12/2014	<b>Casing Type</b>	Steel
<b>Start Depth</b>	416.00 ft	<b>End Depth</b>	1225.00 ft

<b>Diameter</b>	5.00 in	<b>Amount</b>	809.00 ft
<b>Comments</b>			
<b>Date</b>	12/12/2014	<b>Casing Type</b>	Steel
<b>Start Depth</b>	3.00 ft	<b>End Depth</b>	432.00 ft
<b>Diameter</b>	8.00 in	<b>Amount</b>	429.00 ft
<b>Comments</b>			
<b>Date</b>	02/20/1960	<b>Casing Type</b>	Steel
<b>Start Depth</b>	0.00 ft	<b>End Depth</b>	450.00 ft
<b>Diameter</b>	12.00 in	<b>Amount</b>	450.00 ft
<b>Comments</b>			
<b>Date</b>	02/20/1960	<b>Casing Type</b>	Steel
<b>Start Depth</b>	0.00 ft	<b>End Depth</b>	1225.00 ft
<b>Diameter</b>	8.00 in	<b>Amount</b>	1225.00 ft
<b>Comments</b>			

## Grout Construction Information

<b>Date</b>	02/20/1960	<b>Grout Type</b>	Cement	<b>Grout Placement</b>	Unknown
<b>Start Depth</b>	0.00 ft	<b>End Depth</b>			1225.00 ft
<b>Comments</b>					

## Log Information

<b>Date</b>	02/01/1960
<b>Log Types</b>	Strip log
<b>Prepared By</b>	Unknown
<b>Comments</b>	

<b>Date</b>	
<b>Log Types</b>	Drillers log
<b>Prepared By</b>	
<b>Comments</b>	

## Stratigraphy Information

<b>System</b>	Quaternary		
<b>Series</b>			
<b>Group</b>			
<b>Formation</b>			
<b>Member</b>			
<b>Submember</b>			
<b>Start Depth</b>	0.00 ft	<b>End Depth</b>	3.00 ft

<b>Contact Accuracy</b>			
<b>Penetration</b>			
<b>Primary Lithology</b>	Soil Or Fill	<b>Percent</b>	100
<b>Secondary Lithology</b>		<b>Percent</b>	
<b>Tertiary Lithology</b>		<b>Percent</b>	
<b>Comments</b>			
<hr/>			
<b>System</b>	Quaternary		
<b>Series</b>	Pleistocene Series		
<b>Group</b>	Wisconsinan Episode		
<b>Formation</b>	Peoria		
<b>Member</b>			
<b>Submember</b>			
<b>Start Depth</b>	3.00 ft	<b>End Depth</b>	10.00 ft
<b>Contact Accuracy</b>			
<b>Penetration</b>			
<b>Primary Lithology</b>	Loess	<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>			
<hr/>			
<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>	10.00 ft	<b>End Depth</b>	40.00 ft
<b>Contact Accuracy</b>			
<b>Penetration</b>			
<b>Primary Lithology</b>	Till - Oxidized And Unleached	<b>Percent</b>	80
<b>Secondary Lithology</b>	Till - Oxidized And Leached	<b>Percent</b>	10
<b>Tertiary Lithology</b>	Gumbotil	<b>Percent</b>	10
<b>Comments</b>			
<hr/>			
<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>	40.00 ft	<b>End Depth</b>	55.00 ft
<b>Contact Accuracy</b>			
<b>Penetration</b>			
<b>Primary Lithology</b>	Till - Unoxidized And Unleached	<b>Percent</b>	0
<b>Secondary Lithology</b>		<b>Percent</b>	

<b>Tertiary Lithology</b>	<b>Percent</b>		
<b>Comments</b>			
<b>System</b>	Mississippian (Subsystem Of Carboniferous System)		
<b>Series</b>			
<b>Group</b>	Augusta		
<b>Formation</b>	Burlington		
<b>Member</b>			
<b>Submember</b>			
<b>Start Depth</b>	55.00 ft	<b>End Depth</b>	125.00 ft
<b>Contact Accuracy</b>			
<b>Penetration</b>			
<b>Primary Lithology</b>	Dolomite	<b>Percent</b>	0
<b>Secondary Lithology</b>	Chert/Chalcedony	<b>Percent</b>	0
<b>Tertiary Lithology</b>	Limestone	<b>Percent</b>	0
<b>Comments</b>			
<b>System</b>	Mississippian (Subsystem Of Carboniferous System)		
<b>Series</b>			
<b>Group</b>	Sub-Augusta		
<b>Formation</b>	Maynes Creek		
<b>Member</b>	Wassonville		
<b>Submember</b>			
<b>Start Depth</b>	125.00 ft	<b>End Depth</b>	155.00 ft
<b>Contact Accuracy</b>			
<b>Penetration</b>			
<b>Primary Lithology</b>	Dolomite	<b>Percent</b>	100
<b>Secondary Lithology</b>		<b>Percent</b>	
<b>Tertiary Lithology</b>		<b>Percent</b>	
<b>Comments</b>			
<b>System</b>	Mississippian (Subsystem Of Carboniferous System)		
<b>Series</b>			
<b>Group</b>	North Hill		
<b>Formation</b>			
<b>Member</b>			
<b>Submember</b>			
<b>Start Depth</b>	155.00 ft	<b>End Depth</b>	172.00 ft
<b>Contact Accuracy</b>			
<b>Penetration</b>			
<b>Primary Lithology</b>	Limestone	<b>Percent</b>	0
<b>Secondary Lithology</b>	Dolomite	<b>Percent</b>	0
<b>Tertiary Lithology</b>		<b>Percent</b>	
<b>Comments</b>			
<b>System</b>	Devonian		
<b>Series</b>			
<b>Group</b>	Yellow Spring (New Albany)		
<b>Formation</b>	Maple Mill		

<b>Member</b>	English River		
<b>Submember</b>			
<b>Start Depth</b>	172.00 ft	<b>End Depth</b>	180.00 ft
<b>Contact Accuracy Penetration</b>			
<b>Primary Lithology</b>	Siltstone	<b>Percent</b>	100
<b>Secondary Lithology</b>		<b>Percent</b>	
<b>Tertiary Lithology</b>		<b>Percent</b>	
<b>Comments</b>			

---

<b>System</b>	Devonian		
<b>Series</b>			
<b>Group</b>	Yellow Spring (New Albany)		
<b>Formation</b>	Maple Mill		
<b>Member</b>			
<b>Submember</b>			
<b>Start Depth</b>	180.00 ft	<b>End Depth</b>	325.00 ft
<b>Contact Accuracy Penetration</b>			
<b>Primary Lithology</b>	Shale	<b>Percent</b>	100
<b>Secondary Lithology</b>		<b>Percent</b>	
<b>Tertiary Lithology</b>		<b>Percent</b>	
<b>Comments</b>			

---

<b>System</b>	Devonian		
<b>Series</b>			
<b>Group</b>	Yellow Spring (New Albany)		
<b>Formation</b>	Sheffield		
<b>Member</b>			
<b>Submember</b>			
<b>Start Depth</b>	325.00 ft	<b>End Depth</b>	448.00 ft
<b>Contact Accuracy Penetration</b>			
<b>Primary Lithology</b>	Shale	<b>Percent</b>	100
<b>Secondary Lithology</b>		<b>Percent</b>	
<b>Tertiary Lithology</b>		<b>Percent</b>	
<b>Comments</b>			

---

<b>System</b>	Devonian		
<b>Series</b>			
<b>Group</b>	Yellow Spring (New Albany)		
<b>Formation</b>	Lime Creek		
<b>Member</b>			
<b>Submember</b>			
<b>Start Depth</b>	448.00 ft	<b>End Depth</b>	535.00 ft
<b>Contact Accuracy Penetration</b>			
<b>Primary Lithology</b>	Limestone	<b>Percent</b>	0
<b>Secondary Lithology</b>	Shale	<b>Percent</b>	0

Tertiary Lithology		Percent	
Comments			
<b>System</b>	Devonian		
<b>Series</b>			
<b>Group</b>	Cedar Valley		
<b>Formation</b>	Little Cedar		
<b>Member</b>	Rapid		
<b>Submember</b>			
<b>Start Depth</b>	535.00 ft	<b>End Depth</b>	555.00 ft
<b>Contact Accuracy</b>			
<b>Penetration</b>			
<b>Primary Lithology</b>	Dolomite	<b>Percent</b>	0
<b>Secondary Lithology</b>	Limestone	<b>Percent</b>	0
<b>Tertiary Lithology</b>	Chert/Chalcedony	<b>Percent</b>	0
<b>Comments</b>			
<b>System</b>	Devonian		
<b>Series</b>			
<b>Group</b>	Cedar Valley		
<b>Formation</b>	Little Cedar		
<b>Member</b>	Solon		
<b>Submember</b>			
<b>Start Depth</b>	555.00 ft	<b>End Depth</b>	650.00 ft
<b>Contact Accuracy</b>			
<b>Penetration</b>			
<b>Primary Lithology</b>	Limestone	<b>Percent</b>	0
<b>Secondary Lithology</b>	Dolomite	<b>Percent</b>	0
<b>Tertiary Lithology</b>		<b>Percent</b>	
<b>Comments</b>			
<b>System</b>	Devonian		
<b>Series</b>			
<b>Group</b>	Wapsipinicon		
<b>Formation</b>	Pinicon Ridge		
<b>Member</b>	Spring Grove		
<b>Submember</b>			
<b>Start Depth</b>	650.00 ft	<b>End Depth</b>	695.00 ft
<b>Contact Accuracy</b>			
<b>Penetration</b>			
<b>Primary Lithology</b>	Dolomite	<b>Percent</b>	0
<b>Secondary Lithology</b>	Gypsum/Anhydrite	<b>Percent</b>	0
<b>Tertiary Lithology</b>		<b>Percent</b>	
<b>Comments</b>			
<b>System</b>	Ordovician		
<b>Series</b>			
<b>Group</b>			
<b>Formation</b>	Maquoketa		

<b>Member</b>			
<b>Submember</b>			
<b>Start Depth</b>	695.00 ft	<b>End Depth</b>	780.00 ft
<b>Contact Accuracy</b>			
<b>Penetration</b>			
<b>Primary Lithology</b>	Shale	<b>Percent</b>	0
<b>Secondary Lithology</b>	Dolomite	<b>Percent</b>	0
<b>Tertiary Lithology</b>		<b>Percent</b>	
<b>Comments</b>			

---

<b>System</b>	Ordovician		
<b>Series</b>			
<b>Group</b>			
<b>Formation</b>	Maquoketa		
<b>Member</b>	Elgin Limestone		
<b>Submember</b>			
<b>Start Depth</b>	780.00 ft	<b>End Depth</b>	840.00 ft
<b>Contact Accuracy</b>			
<b>Penetration</b>			
<b>Primary Lithology</b>	Shale	<b>Percent</b>	0
<b>Secondary Lithology</b>	Dolomite	<b>Percent</b>	0
<b>Tertiary Lithology</b>		<b>Percent</b>	
<b>Comments</b>			

---

<b>System</b>	Unknown		
<b>Series</b>			
<b>Group</b>			
<b>Formation</b>			
<b>Member</b>			
<b>Submember</b>			
<b>Start Depth</b>	840.00 ft	<b>End Depth</b>	940.00 ft
<b>Contact Accuracy</b>			
<b>Penetration</b>			
<b>Primary Lithology</b>	Limestone	<b>Percent</b>	0
<b>Secondary Lithology</b>	Dolomite	<b>Percent</b>	0
<b>Tertiary Lithology</b>	Chert/Chalcedony	<b>Percent</b>	0
<b>Comments</b>			

---

<b>System</b>	Ordovician		
<b>Series</b>			
<b>Group</b>	Galena		
<b>Formation</b>	Dunleith		
<b>Member</b>			
<b>Submember</b>			
<b>Start Depth</b>	940.00 ft	<b>End Depth</b>	1050.00 ft
<b>Contact Accuracy</b>			
<b>Penetration</b>			
<b>Primary Lithology</b>	Dolomite	<b>Percent</b>	0
<b>Secondary Lithology</b>	Chert/Chalcedony	<b>Percent</b>	0

Tertiary Lithology		Percent	
Comments			
<b>System</b>	Ordovician		
<b>Series</b>			
<b>Group</b>	Galena		
<b>Formation</b>	Decorah		
<b>Member</b>			
<b>Submember</b>			
<b>Start Depth</b>	1050.00 ft	<b>End Depth</b>	1065.00 ft
<b>Contact Accuracy</b>			
<b>Penetration</b>			
<b>Primary Lithology</b>	Limestone	<b>Percent</b>	0
<b>Secondary Lithology</b>	Shale	<b>Percent</b>	0
<b>Tertiary Lithology</b>		<b>Percent</b>	
<b>Comments</b>			
<b>System</b>	Ordovician		
<b>Series</b>			
<b>Group</b>	Galena		
<b>Formation</b>	Decorah		
<b>Member</b>	Spechts Ferry		
<b>Submember</b>			
<b>Start Depth</b>	1065.00 ft	<b>End Depth</b>	1070.00 ft
<b>Contact Accuracy</b>			
<b>Penetration</b>			
<b>Primary Lithology</b>	Limestone	<b>Percent</b>	0
<b>Secondary Lithology</b>	Shale	<b>Percent</b>	0
<b>Tertiary Lithology</b>		<b>Percent</b>	
<b>Comments</b>			
<b>System</b>	Ordovician		
<b>Series</b>			
<b>Group</b>	Galena		
<b>Formation</b>	Platteville		
<b>Member</b>	Mcgregor		
<b>Submember</b>			
<b>Start Depth</b>	1070.00 ft	<b>End Depth</b>	1110.00 ft
<b>Contact Accuracy</b>			
<b>Penetration</b>			
<b>Primary Lithology</b>	Limestone	<b>Percent</b>	0
<b>Secondary Lithology</b>	Dolomite	<b>Percent</b>	0
<b>Tertiary Lithology</b>		<b>Percent</b>	
<b>Comments</b>			
<b>System</b>	Ordovician		
<b>Series</b>			
<b>Group</b>	Ancell		
<b>Formation</b>	Glenwood		



<b>Member</b>	Starved Rock Sandstone		
<b>Submember</b>			
<b>Start Depth</b>	1110.00 ft	<b>End Depth</b>	1120.00 ft
<b>Contact Accuracy Penetration</b>			
<b>Primary Lithology</b>	Sandstone	<b>Percent</b>	0
<b>Secondary Lithology</b>	Dolomite	<b>Percent</b>	0
<b>Tertiary Lithology</b>		<b>Percent</b>	
<b>Comments</b>			

---

<b>System</b>	Ordovician		
<b>Series</b>			
<b>Group</b>	Ansell		
<b>Formation</b>	Glenwood		
<b>Member</b>	Harmony Hill		
<b>Submember</b>			
<b>Start Depth</b>	1120.00 ft	<b>End Depth</b>	1130.00 ft
<b>Contact Accuracy Penetration</b>			
<b>Primary Lithology</b>	Shale	<b>Percent</b>	100
<b>Secondary Lithology</b>		<b>Percent</b>	
<b>Tertiary Lithology</b>		<b>Percent</b>	
<b>Comments</b>			

---

<b>System</b>	Ordovician		
<b>Series</b>			
<b>Group</b>	Ansell		
<b>Formation</b>	St. Peter Sandstone		
<b>Member</b>			
<b>Submember</b>			
<b>Start Depth</b>	1130.00 ft	<b>End Depth</b>	1158.00 ft
<b>Contact Accuracy 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>			

---

<b>System</b>	Ordovician		
<b>Series</b>			
<b>Group</b>	Prairie Du Chien		
<b>Formation</b>	Shakopee		
<b>Member</b>	Willow River		
<b>Submember</b>			
<b>Start Depth</b>	1158.00 ft	<b>End Depth</b>	1330.00 ft
<b>Contact Accuracy Penetration</b>			
<b>Primary Lithology</b>	Dolomite	<b>Percent</b>	0
<b>Secondary Lithology</b>	Chert/Chalcedony	<b>Percent</b>	0

<b>Tertiary Lithology</b>	Sandstone	<b>Percent</b>	0
<b>Comments</b>			
<b>System</b>	Ordovician		
<b>Series</b>			
<b>Group</b>	Prairie Du Chien		
<b>Formation</b>	Shakopee		
<b>Member</b>	New Richmond		
<b>Submember</b>			
<b>Start Depth</b>	1330.00 ft	<b>End Depth</b>	1400.00 ft
<b>Contact Accuracy</b>			
<b>Penetration</b>			
<b>Primary Lithology</b>	Dolomite	<b>Percent</b>	0
<b>Secondary Lithology</b>	Sandstone	<b>Percent</b>	0
<b>Tertiary Lithology</b>		<b>Percent</b>	
<b>Comments</b>			

<b>System</b>	Ordovician		
<b>Series</b>			
<b>Group</b>	Prairie Du Chien		
<b>Formation</b>	Oneota		
<b>Member</b>			
<b>Submember</b>			
<b>Start Depth</b>	1400.00 ft	<b>End Depth</b>	1556.00 ft
<b>Contact Accuracy</b>			
<b>Penetration</b>			
<b>Primary Lithology</b>	Dolomite	<b>Percent</b>	0
<b>Secondary Lithology</b>	Chert/Chalcedony	<b>Percent</b>	0
<b>Tertiary Lithology</b>		<b>Percent</b>	
<b>Comments</b>			

## Water Production Information

<b>Date</b>	01/01/2014	<b>Start Time</b>	
<b>Aquifer</b>			
<b>Static Water Level</b>	271.00 ft	<b>Yield</b>	0 gallons per minute
<b>Pumping Water Level</b>	294 ft	<b>Yield Method</b>	
<b>Measurement</b>	Airline	<b>Pump Test</b>	No
<b>Pump Method</b>		<b>Duration</b>	0 mins
<b>Comments</b>	Reported on DNR 2014 Jordan Questionnaire		

<b>Date</b>	02/20/1960	<b>Start Time</b>	
<b>Aquifer</b>	Unknown		
<b>Static Water Level</b>	163.00 ft	<b>Yield</b>	480 gallons per minute
<b>Pumping Water Level</b>	194 ft	<b>Yield Method</b>	Unknown
<b>Measurement</b>	Unknown	<b>Pump Test</b>	No
<b>Pump Method</b>	Unknown	<b>Duration</b>	0 mins
<b>Comments</b>			

# Chip Storage Information

<b>Date</b>	01/26/1960	<b>Bin</b>	
<b>Storage</b>	TL1-27->29	<b>Number of Samples</b>	247
<b>Number of Boxes</b>	3	<b>Sample Gaps</b>	MANY
<b>Sample Intervals</b>	5	<b>Sample Bottom</b>	1555 ft
<b>Sample Top</b>	0 ft	<b>Washed Bottom</b>	1555 ft
<b>Washed Top</b>	55 ft		
<b>Duplicate Storage</b>			
<b>Comments</b>			

<https://www.iihr.uiowa.edu/igs/geosam/well/11764/general-information>