

WATER WELL RECORD

Form WWC-5

Division of Water Resources App. No.

1 LOCATION OF WATER WELL:		Fraction		Section Number	Township No.	Range Number																																																																								
County: <u>Sedgewick</u>		<u>SE 1/4 SE 1/4 SW 1/4 SW 1/4</u>		<u>10</u>	T <u>27</u> S	R <u>1</u> ☒ E ☐ W																																																																								
Street/Rural Address of Well Location; if unknown, distance & direction from nearest town or intersection: If at owner's address, check here ☐				Global Positioning System (GPS) information:																																																																										
<u>110' North of E 13th St. N. and 10' West of N. Minneapolis Street, Wichita, KS.</u>				Latitude: <u>37.70852500</u> (in decimal degrees)																																																																										
				Longitude: <u>-97.31537500</u> (in decimal degrees)																																																																										
2 WATER WELL OWNER: <u>Union Pacific Railroad</u>				Elevation: <u> </u>																																																																										
RR#, Street Address, Box #: <u>Jerry McDermott</u>				Datum: ☐ WGS 84, ☒ NAD 83, ☐ NAD 27																																																																										
City, State, ZIP Code: <u>1400 Douglas Street</u>				Collection Method:																																																																										
<u>Stop 1030, Omaha, NE, 68179-1030</u>				☒ GPS unit (Make/Model: <u>Garmin Nuvi</u>)																																																																										
				☐ Digital Map/Photo, ☐ Topographic Map, ☐ Land Survey																																																																										
				Est. Accuracy: ☐ <3 m, ☐ 3-5 m, ☐ 5-15 m, ☐ >15 m																																																																										
3 LOCATE WELL WITH AN "X" IN SECTION BOX:		4 DEPTH OF COMPLETED WELL <u>28.0</u> ft.																																																																												
N <table border="1" style="margin: auto; border-collapse: collapse;"> <tr> <td style="width: 25px; height: 25px;"></td> <td style="width: 25px; height: 25px;"></td> </tr> <tr> <td style="width: 25px; height: 25px;"></td> <td style="width: 25px; height: 25px;"></td> </tr> </table> S -----1 mile-----						Depth(s) Groundwater Encountered (1)..... ft. (2)..... ft. (3)..... ft.																																																																								
WELL'S STATIC WATER LEVEL.....ft. below land surface measured on mo/day/yr.....																																																																														
Pump test data: Well water was.....ft. after..... hours pumping..... gpm																																																																														
EST. YIELD.....gpm. Well water was.....ft. after..... hours pumping..... gpm																																																																														
Bore Hole Diameter <u>10</u> in. to <u>30</u> ft. and.....in. to.....ft.																																																																														
WELL WATER TO BE USED AS: ☐ Public water supply ☐ Geothermal ☒ Injection well																																																																														
☐ Domestic ☐ Feedlot ☐ Oil field water supply ☐ Dewatering ☐ Other (Specify below)																																																																														
☐ Irrigation ☐ Industrial ☐ Domestic-lawn & garden ☐ Monitoring well																																																																														
Was a chemical/bacteriological sample submitted to Department? ☐ Yes ☒ No																																																																														
If yes, mo/day/yr sample was submitted.....																																																																														
Water well disinfected? ☐ Yes ☒ No																																																																														
5 TYPE OF CASING USED: ☐ Steel ☒ PVC ☐ Other.....																																																																														
CASING JOINTS: ☐ Glued ☐ Clamped ☐ Welded ☒ Threaded																																																																														
Casing diameter <u>6</u> in. to <u>18</u> ft., Diameter.....in. to.....ft., Diameter.....in. to.....ft.																																																																														
Casing height above land surface.....in., Weight <u>5.4</u> lbs./ft., Wall thickness or gauge No. <u>Sch 80</u>																																																																														
TYPE OF SCREEN OR PERFORATION MATERIAL:																																																																														
☐ Steel ☒ Stainless Steel ☐ PVC ☐ Other (Specify).....																																																																														
☐ Brass ☐ Galvanized Steel ☐ None used (open hole)																																																																														
SCREEN OR PERFORATION OPENINGS ARE:																																																																														
☐ Continuous slot ☐ Mill slot ☐ Gauze wrapped ☐ Torch cut ☐ Drilled holes ☐ None (open hole)																																																																														
☐ Louvered shutter ☐ Key punched ☒ Wire wrapped ☐ Saw cut ☐ Other (specify).....																																																																														
SCREEN-PERFORATED INTERVALS: From <u>18</u> ft. to <u>28</u> ft., From.....ft. to.....ft.																																																																														
From.....ft. to.....ft., From.....ft. to.....ft.																																																																														
GRAVEL PACK INTERVALS: From <u>15</u> ft. to <u>30</u> ft., From.....ft. to.....ft.																																																																														
From.....ft. to.....ft., From.....ft. to.....ft.																																																																														
6 GROUT MATERIAL: ☒ Neat cement ☐ Cement grout ☐ Bentonite ☐ Other.....																																																																														
Grout Intervals: From <u>14.5</u> ft. to <u>4.0</u> ft., From.....ft. to.....ft., From.....ft. to.....ft.																																																																														
What is the nearest source of possible contamination:																																																																														
☐ Septic tank ☐ Lateral lines ☐ Pit privy ☐ Livestock pens ☐ Insecticide storage ☒ Other (specify below)																																																																														
☐ Sewer lines ☐ Cesspool ☐ Sewage lagoon ☐ Fuel storage ☐ Abandoned water well <u>Fuel</u>																																																																														
☐ Watertight sewer lines ☐ Seepage pit ☐ Feedyard ☐ Fertilizer storage ☐ Oil well/gas well																																																																														
Direction from well..... Distance from well.....																																																																														
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>FROM</th> <th>TO</th> <th>LITHOLOGIC LOG</th> <th>FROM</th> <th>TO</th> <th>LITHO. LOG (cont.) or PLUGGING INTERVALS</th> </tr> </thead> <tbody> <tr> <td><u>0</u></td> <td><u>15</u></td> <td><u>Clay/Silt</u></td> <td></td> <td></td> <td></td> </tr> <tr> <td><u>15</u></td> <td><u>25</u></td> <td><u>Sandy Silt</u></td> <td></td> <td></td> <td></td> </tr> <tr> <td><u>25</u></td> <td><u>30</u></td> <td><u>Sandy Silt</u></td> <td></td> <td></td> <td></td> </tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table>							FROM	TO	LITHOLOGIC LOG	FROM	TO	LITHO. LOG (cont.) or PLUGGING INTERVALS	<u>0</u>	<u>15</u>	<u>Clay/Silt</u>				<u>15</u>	<u>25</u>	<u>Sandy Silt</u>				<u>25</u>	<u>30</u>	<u>Sandy Silt</u>																																																			
FROM	TO	LITHOLOGIC LOG	FROM	TO	LITHO. LOG (cont.) or PLUGGING INTERVALS																																																																									
<u>0</u>	<u>15</u>	<u>Clay/Silt</u>																																																																												
<u>15</u>	<u>25</u>	<u>Sandy Silt</u>																																																																												
<u>25</u>	<u>30</u>	<u>Sandy Silt</u>																																																																												
7 CONTRACTOR'S OR LANDOWNER'S CERTIFICATION: This water well was ☒ constructed, ☐ reconstructed, or ☐ plugged under my jurisdiction and was completed on (mo/day/year) <u>9/18/13</u> and this record is true to the best of my knowledge and belief.																																																																														
Kansas Water Well Contractor's License No. <u>597</u> This Water Well Record was completed on (mo/day/year) <u>9-20-13</u>																																																																														
under the business name of <u>Cascade Drilling, L.P.</u> by (signature) <u>[Signature]</u>																																																																														
INSTRUCTIONS: Use typewriter or ball point pen. PLEASE PRESS FIRMLY and PRINT clearly. Please fill in blanks and check the correct answers. Send three copies (white, blue, pink) to Kansas Department of Health and Environment, Bureau of Water, Geology Section, 1000 SW Jackson St., Suite 420, Topeka, Kansas 66612-1367. Telephone 785-296-5524. Send one copy to WATER WELL OWNER and retain one for your records. Include fee of \$5.00 for each constructed well. Visit us at http://www.kdheks.gov/waterwell/index.html .																																																																														

ARCADIS Sample/Core Log

Boring/Well 1W-6 Project/No. 29th & Grove (UPRR) / KCO01648.0001.00003 Page 1 of 1

Site Location 13th & Minneapolis - NW corner Drilling Started 0938 9/7/2013 Drilling Completed 1145 9/7/2013

Total Depth Drilled 30 Feet Hole Diameter 10 inches Type of Sample/ Coring Device Core barrel

Length and Diameter of Coring Device 10' x 4" Sampling Interval 10 feet

Land-Surface Elev. 1304 feet ☐ Surveyed ☒ Estimated Datum GL

Drilling Fluid Used Potable Water Drilling Method Roto sonic

Drilling Contractor Cascade Drilling - Schofield, WI Driller Rog Buchenberger Helper Ron Walkowiak

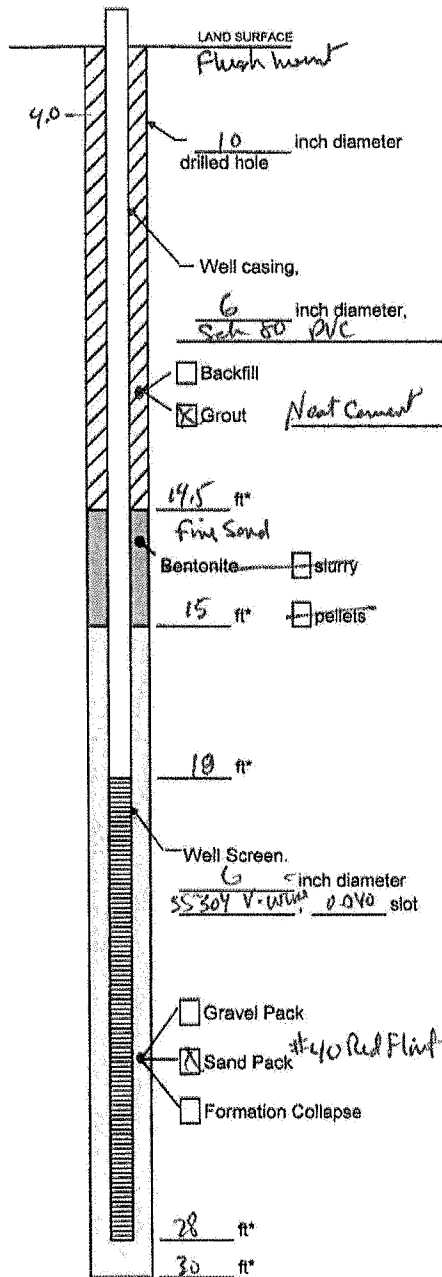
Prepared By Larry Benoltkin Hammer Weight — Hammer Drop — ins.

Sample/Core Depth (feet below land surface)		Core Recovery (feet)	Time/Hydraulic Pressure or Blows per 6 Inches	Sample/Core Description
From	To			
Surf	5'	—	—	Hydro knife - Not logged
5	15	4.7	—	MC, clayey silt with sand, dk yellow (10YR 4/6), soft, non plastic, 15% fine sand, dry, no PID response @ 6' - Cl, lean clay, dk grey brown (10YR 5/2), stiff, slightly plastic 10-20% fine sand, somewhat poorly bedded w/ in fine beds, dry, no PID response @ 9.2' SC, clayey, sandy fine sand up to 50% in clay, dk grey brown (10YR 5/2) mod. stiff, non-plastic dry, no PID response
15	25	6.8' 5.8'	—	CH, silty clay, dk yll brown (10YR 3/4), stiff, mod. plastic; wet, no PID response at 15.0' - SW well-sorted sand brown (10YR 4/3) fine to coarse sand, non gravel, all rounded 70-80% etc, loose, wet, no PID response very coarse between 25 & 26' then fine to medium below
25	30	3.8'	—	SW as above at 28' sharp break to Cl, lean clay weathered shale, olive brown (2.5Y 4/3), stiff, non plastic fine bedding marked by color change, dry, no PID response at 29.4' grades to Cl, lean clay weathered shale, dk bluish grey (5PB 4/1), very stiff, non-plastic, some irregular gravel shot-size hard pieces, dry, no PID response, no massive bedding

ARCADIS

Well Construction Log

(Unconsolidated)



Measuring Point is
Top of Well Casing
Unless Otherwise Noted.

* Depth Below Land Surface

Project 2915A GROVE/KC001148.0001 Well 1W-6

Town/City Wichita

County Sedgewick State KS

Permit No. Wichita C230475

Land-Surface (LS) Elevation and Datum:

1304 feet ☐ Surveyed

☒ Estimated

Installation Date(s) 9/7/2013

Drilling Method Roto Sonic

Drilling Contractor

Drilling Fluid Potable water

Development Technique(s) and Date(s)

Fluid Loss During Drilling 800 gallons

Water Removed During Development _____ gallons

Static Depth to Water _____ feet below M.P.

Pumping Depth to Water _____ feet below M.P.

Pumping Duration _____ hours

Yield _____ gpm Date _____

Specific Capacity _____ gpm/ft

Well Purpose Injection testing

Remarks

Prepared by Larry Bost/K