

758567

County St. Louis
Quad Adolph
Quad ID 245D

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING REPORT
Minnesota Statutes Chapter 1031

Entry Date 11/24/2009
Update Date 11/12/2019
Received Date 01/07/2008

Well Name NISIUS,	Township 51	Range 16	Dir Section W 36	Subsection ABDDCD	Well Depth 71 ft.	Depth Completed 71 ft.	Date Well Completed 12/10/2007																									
Elevation 1409	Elev. Method LiDAR 1m DEM (MNDNR)	Drill Method Multiple methods used				Drill Fluid Water																										
Address Contact 1248 BRAINERD AV DULUTH MN 55811 Well 5965 SOUTH PIKE LAKE RD DULUTH MN 55811					Use domestic	Status Active																										
Stratigraphy Information					Well Hydrofractured? Yes ☐ No ☒	From To																										
<table><tr><td>Geological Material</td><td>From</td><td>To (ft.)</td><td>Color</td><td>Hardness</td></tr><tr><td>ROCKY LOAM</td><td>0</td><td>14</td><td>BROWN</td><td>SOFT</td></tr><tr><td>BOULDER, CLAY &</td><td>14</td><td>34</td><td>BROWN</td><td>M.HARD</td></tr><tr><td>BOULDER & GLACIAL</td><td>34</td><td>65</td><td>BROWN</td><td>M.HARD</td></tr><tr><td>BOULDER & GLACIAL</td><td>65</td><td>71</td><td>BROWN</td><td>M.SOFT</td></tr></table>					Geological Material	From	To (ft.)	Color	Hardness	ROCKY LOAM	0	14	BROWN	SOFT	BOULDER, CLAY &	14	34	BROWN	M.HARD	BOULDER & GLACIAL	34	65	BROWN	M.HARD	BOULDER & GLACIAL	65	71	BROWN	M.SOFT	Casing Type Single casing	Joint Other	
Geological Material	From	To (ft.)	Color	Hardness																												
ROCKY LOAM	0	14	BROWN	SOFT																												
BOULDER, CLAY &	14	34	BROWN	M.HARD																												
BOULDER & GLACIAL	34	65	BROWN	M.HARD																												
BOULDER & GLACIAL	65	71	BROWN	M.SOFT																												
					Drive Shoe? Yes ☒ No ☐	Above/Below																										
					Casing Diameter 6 in. To 71 ft.	Weight 19.45 lbs./ft.	Hole Diameter 6 in. To 71 ft.																									
					Open Hole From 71 ft. To 71 ft.																											
					Screen? ☐	Type	Make																									
					Static Water Level																											
					Pumping Level (below land surface) ft. hrs. Pumping at 4 g.p.m.																											
					Wellhead Completion Pitless adapter manufacturer Model ☐ Casing Protection ☒ 12 in. above grade ☐ At-grade (Environmental Wells and Borings ONLY)																											
					Grouting Information Well Grouted? ☒ Yes ☐ No ☐ Not Specified Material Amount From To bentonite 0 2 ft. 71 ft.																											
					Nearest Known Source of Contamination 20 feet East Direction Sewer Type Well disinfected upon completion? ☒ Yes ☐ No																											
					Pump ☐ Not Installed Date Installed Manufacturer's name Model Number HP Volt Length of drop pipe ft Capacity g.p. Typ																											
					Abandoned Does property have any not in use and not sealed well(s)? ☐ Yes ☐ No																											
					Variance Was a variance granted from the MDH for this well? ☒ Yes ☐ No																											
					Miscellaneous First Bedrock Aquifer Quaternary Last Strat till-brown Depth to Bedrock ft Located by Minnesota Geological Survey Locate Method GPS SA Off (averaged) (15 meters) System UTM - NAD83, Zone 15, Meters X 552759 Y 5190060 Unique Number Verification Address verification Input Date 07/05/2017																											
					Angled Drill Hole																											
					Well Contractor Rasmussen Well Drilling, Inc. 1466 MINDESTROM, C Licensee Business Lic. or Reg. No. Name of Driller																											

Remarks
VARIANCE TN# 4198.