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County St. Louis  
Quad Esko  
Quad ID 224A

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

Entry Date  
Update Date 07/30/2015  
Received Date 07/07/2009

|                                                                                                                                                                                                                                                                                                                               |                                             |                    |                            |                             |                                                                                         |  |  |  |  |                                          |  |  |  |  |                      |  |  |  |  |                |  |  |  |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|--------------------|----------------------------|-----------------------------|-----------------------------------------------------------------------------------------|--|--|--|--|------------------------------------------|--|--|--|--|----------------------|--|--|--|--|----------------|--|--|--|--|
| <b>Well Name</b><br>KOSKI, PAUL                                                                                                                                                                                                                                                                                               | <b>Township</b><br>49                       | <b>Range</b><br>15 | <b>Dir Section</b><br>W 18 | <b>Subsection</b><br>ACCCBA |                                                                                         |  |  |  |  |                                          |  |  |  |  |                      |  |  |  |  |                |  |  |  |  |
| <b>Elevation</b><br>1215                                                                                                                                                                                                                                                                                                      | <b>Elev. Method</b><br>LiDAR 1m DEM (MNDNR) |                    |                            |                             |                                                                                         |  |  |  |  |                                          |  |  |  |  |                      |  |  |  |  |                |  |  |  |  |
| <b>Address</b><br><br>Contact 9330 GRAND AV DULUTH MN 55807                                                                                                                                                                                                                                                                   |                                             |                    |                            |                             |                                                                                         |  |  |  |  |                                          |  |  |  |  |                      |  |  |  |  |                |  |  |  |  |
| <b>Stratigraphy Information</b><br>Geological Material From To (ft.) Color Hardness<br>CLAY 0 55 RED HARD<br>SANDY CLAY 55 80 GRAY SOFT<br>WATER SAND 80 100 GRAY SOFT                                                                                                                                                        |                                             |                    |                            |                             |                                                                                         |  |  |  |  |                                          |  |  |  |  |                      |  |  |  |  |                |  |  |  |  |
| <b>Well Depth</b><br>100 ft.                                                                                                                                                                                                                                                                                                  |                                             |                    |                            |                             | <b>Depth Completed</b><br>100 ft.                                                       |  |  |  |  | <b>Date Well Completed</b><br>07/07/2009 |  |  |  |  |                      |  |  |  |  |                |  |  |  |  |
| <b>Drill Method</b><br>Non-specified Rotary                                                                                                                                                                                                                                                                                   |                                             |                    |                            |                             | <b>Drill Fluid</b><br>Bentonite                                                         |  |  |  |  |                                          |  |  |  |  |                      |  |  |  |  |                |  |  |  |  |
| <b>Use</b><br>domestic                                                                                                                                                                                                                                                                                                        |                                             |                    |                            |                             | <b>Status</b><br>Active                                                                 |  |  |  |  |                                          |  |  |  |  |                      |  |  |  |  |                |  |  |  |  |
| <b>Well Hydrofractured?</b><br>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>                                                                                                                                                                                                                            |                                             |                    |                            |                             | <b>From</b><br>To                                                                       |  |  |  |  |                                          |  |  |  |  |                      |  |  |  |  |                |  |  |  |  |
| <b>Casing Type</b><br>Single casing                                                                                                                                                                                                                                                                                           |                                             |                    |                            |                             | <b>Joint</b><br>Above/Below                                                             |  |  |  |  |                                          |  |  |  |  |                      |  |  |  |  |                |  |  |  |  |
| <b>Drive Shoe?</b><br>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>                                                                                                                                                                                                                                     |                                             |                    |                            |                             | <b>Drive Shoe?</b><br>Above/Below                                                       |  |  |  |  |                                          |  |  |  |  |                      |  |  |  |  |                |  |  |  |  |
| <b>Casing Diameter</b><br>4 in. To 80 ft. 2 lbs./ft.                                                                                                                                                                                                                                                                          |                                             |                    |                            |                             | <b>Hole Diameter</b><br>8 in. To 100 ft.                                                |  |  |  |  |                                          |  |  |  |  |                      |  |  |  |  |                |  |  |  |  |
| <b>Open Hole</b><br>From ft. To ft.                                                                                                                                                                                                                                                                                           |                                             |                    |                            |                             | <b>Screen?</b> <input checked="" type="checkbox"/> <b>Type</b> slotted pipe <b>Make</b> |  |  |  |  |                                          |  |  |  |  |                      |  |  |  |  |                |  |  |  |  |
| <b>Diameter</b><br>4 in.                                                                                                                                                                                                                                                                                                      |                                             |                    |                            |                             | <b>Slot/Gauze</b><br>10                                                                 |  |  |  |  | <b>Length</b><br>20 ft.                  |  |  |  |  | <b>Set</b><br>80 ft. |  |  |  |  | <b>100 ft.</b> |  |  |  |  |
| <b>Static Water Level</b><br>9 ft. land surface Measure 07/07/2009                                                                                                                                                                                                                                                            |                                             |                    |                            |                             |                                                                                         |  |  |  |  |                                          |  |  |  |  |                      |  |  |  |  |                |  |  |  |  |
| <b>Pumping Level (below land surface)</b><br>ft. hrs. Pumping at 40 g.p.m.                                                                                                                                                                                                                                                    |                                             |                    |                            |                             |                                                                                         |  |  |  |  |                                          |  |  |  |  |                      |  |  |  |  |                |  |  |  |  |
| <b>Wellhead Completion</b><br>Pitless adapter manufacturer Model<br><input type="checkbox"/> Casing Protection <input checked="" type="checkbox"/> 12 in. above grade<br><input type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)                                                                             |                                             |                    |                            |                             |                                                                                         |  |  |  |  |                                          |  |  |  |  |                      |  |  |  |  |                |  |  |  |  |
| <b>Grouting Information</b><br>Well Grouted? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Specified<br>Material Amount From To<br>bentonite 4 Sacks ft. 50 ft.                                                                                                            |                                             |                    |                            |                             |                                                                                         |  |  |  |  |                                          |  |  |  |  |                      |  |  |  |  |                |  |  |  |  |
| <b>Nearest Known Source of Contamination</b><br>60 feet West Direction Septic tank/drain field Type<br>Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No                                                                                                                  |                                             |                    |                            |                             |                                                                                         |  |  |  |  |                                          |  |  |  |  |                      |  |  |  |  |                |  |  |  |  |
| <b>Pump</b> <input checked="" type="checkbox"/> Not Installed Date Installed<br>Manufacturer's name<br>Model Number HP Volt<br>Length of drop pipe ft Capacity g.p. Typ                                                                                                                                                       |                                             |                    |                            |                             |                                                                                         |  |  |  |  |                                          |  |  |  |  |                      |  |  |  |  |                |  |  |  |  |
| <b>Abandoned</b><br>Does property have any not in use and not sealed well(s)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No                                                                                                                                                                             |                                             |                    |                            |                             |                                                                                         |  |  |  |  |                                          |  |  |  |  |                      |  |  |  |  |                |  |  |  |  |
| <b>Variance</b><br>Was a variance granted from the MDH for this well? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No                                                                                                                                                                                     |                                             |                    |                            |                             |                                                                                         |  |  |  |  |                                          |  |  |  |  |                      |  |  |  |  |                |  |  |  |  |
| <b>Miscellaneous</b><br>First Bedrock Aquifer Quat. buried<br>Last Strat sand-gray Depth to Bedrock ft<br>Located by Minnesota Geological Survey<br>Locate Method GPS SA Off (averaged) (15 meters)<br>System UTM - NAD83, Zone 15, Meters X 554230 Y 5175263<br>Unique Number Verification Tax Records Input Date 01/30/2015 |                                             |                    |                            |                             |                                                                                         |  |  |  |  |                                          |  |  |  |  |                      |  |  |  |  |                |  |  |  |  |
| <b>Angled Drill Hole</b>                                                                                                                                                                                                                                                                                                      |                                             |                    |                            |                             |                                                                                         |  |  |  |  |                                          |  |  |  |  |                      |  |  |  |  |                |  |  |  |  |
| <b>Well Contractor</b><br>Fideldy Brothers Well Drilling 1569 FIDELDY, D.<br>Licensee Business Lic. or Reg. No. Name of Driller                                                                                                                                                                                               |                                             |                    |                            |                             |                                                                                         |  |  |  |  |                                          |  |  |  |  |                      |  |  |  |  |                |  |  |  |  |