Well Construction Report – Completion Guide

General

1. Requirements for well construction reports are contained in **The Groundwater and Water Well Act** and Groundwater and Water Well (General Matters) Regulation. While constructing a well or test hole, the person preparing the report must keep a field log. The field log must contain the necessary information to complete the report and be available at the site for inspection.
2. A copy of the well construction report must be provided to the director and the owner of the land on which a well or test hole is located **no later than 45 days** after the completion of the construction.
3. Provide a civic address for the well if its actual location is not clearly identifiable by the mailing address. Also provide land parcel information as either a section-township-range or parish-lot type-lot number. Parish lot types include group lots (GL), lake lots (LL), outer two mile lots (OTM), park lots (PL), river lots (RL), settlement lots (SL) and wood lots (WL).
4. For GPS latitude and longitude coordinates, provide values in NAD 83 decimal degrees, to 5 decimal points (ex: 50.17901°). Attach a detailed sketch showing the well location **if not providing a GPS location**. A detailed sketch may include an image from an online mapping service showing the well location.
5. A person who seals, or partially seals, a well or test hole must complete a well sealing report. However, if a test hole is sealed immediately after it is drilled, the information relating to the sealing may instead be included in the well construction report.

How to Fill Out the Lithologic Description Table

6. Each row in the lithologic description table represents either a depth interval or a specific depth. For example:
   - A depth interval (ex: from 10 feet to 22 feet) could be a layer of clay or till, or an aquifer material such as sand.
   - A specific depth (ex: 120 feet) could be the location of a water-bearing fracture.
7. For each depth interval or specific depth:
   - Describe the overall colour of the geologic material in the column **"Colour"**. Descriptions should be chosen from the following recommended list of colours: white, grey, blue, green, yellow, brown, red, tan, black;
   - Describe the geologic material in the column **"Material Description"**. Descriptions should be chosen from the following recommended list of surficial or bedrock materials:

Surficial Materials			Bedrock Materials
Name	Range of Particle Size*		Name
	Inches	Millimetre	
Boulders	10.08 and larger	256 and larger	Shale
Cobbles	2.52 to 10.08	64 to 256	Limestone/Dolomite
Coarse gravel	0.63 to 2.52	16 to 64	Sandstone
Medium gravel	0.31 to 0.63	8 to 16	Siltstone
Fine gravel	0.08 to 0.31	2 to 8	Gypsum/Anhydrite
Sand (can always be felt as individual grains)	0.002 to 0.08	0.063 to 2	Conglomerate
Silt (usually has a floury feel when dry, and a slippery feel when wet but not sticky)	0.0002 to 0.002	0.004 to 0.063	Breccia
Clay (forms hard lumps when dry, is very sticky when wet, and plastic when moist)	smaller than 0.0002	smaller than 0.004	Coal
Till (unsorted)	variable particle size	variable particle size	Metamorphic
Organics (such as top soil, wood, peat)			Granite
Fill (such as backfill, asphalt, cement)			

*Reference: United States Geological Survey

   - Use the **"Observations"** column to provide additional information on the materials or drilling conditions encountered. Examples include a material that is “oxidized”, “fractured” or “water bearing”. Observations may also include the absence of a drilling water return, or the “estimated flow of water” from a water-bearing fracture (include units of flow such as IGPM or USPGM).

How to Fill Out the Well Construction Table

8. Each row in the well construction table represents either a depth interval (ex: from 50 feet to 60 feet could be the interval of a well screen) or a specific depth (ex: 100 feet be the location of a packer). For each depth interval or specific depth:
   - Check off the appropriate well construction item and provide any necessary inside diameter (ID) and outside diameter (OD) details in the ID and OD columns. Use the OD column to provide the diameter of a borehole.
   - Describe the construction materials in the column **"Type of Material"** (ex:, steel, PVC or fiberglass for casing or liners, stainless steel or plastic screen, screen type and slot size, use of shale traps, packers, screen blanks or tail pipes, bentonite or cement for surface seals, bentonite, cement or drill cuttings for backfill material and type/size of filter pack material).
   - Where applicable, describe how the material was placed in the column **"Method of Placement"** (ex: poured, tremie).

Well Yield Test

9. A well yield test must be performed on a production well or open loop geothermal (source or return) well that is new or whose yield may have changed as a result of a well repair or modification. An exception applies if a formal pumping test is planned to be performed as a licensing requirement under **The Water Rights Act**. However a static water level is still required to be reported.

Remarks

10. Provide any other relevant information (ex: well construction, location) or field tests (ex: conductivity, hardness, iron) in this section.

Definitions of Abbreviations

ags ..... above ground surface
bgs ..... below ground surface
ft .....feet
ID.....Inside diameter
OD.....Outside diameter
E.....East
W..... West
IGPM.....Imperial gallons per minute
USGPM.....US gallons per minute

Return Completed Reports to: Groundwater Management Section
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