

## referenceguide

The form field is based on OSM taxonomy but use 3 custom Tags for improve description of the water well. Is made for H2OpenMap water wells mapping campaign, please refer to [www.h2openmap.org](http://www.h2openmap.org) for further informations. Gray background in the form field, point out custom Tags. Version: beta2, date: November 2015, is made by rasmataonlus, [www.rasmataonlus.org](http://www.rasmataonlus.org).

The paper form field is made with the intent to help mappers to collect infos about water wells. Follow description of used Tags. For standard Tags, please refer also to Humanitarian OSM Tags presets ([http://wiki.openstreetmap.org/wiki/Humanitarian\\_OSM\\_Tags/HDM\\_preset#Water\\_Well](http://wiki.openstreetmap.org/wiki/Humanitarian_OSM_Tags/HDM_preset#Water_Well)) and wiki Tags explanation ([http://wiki.openstreetmap.org/wiki/Tag:man\\_made=water\\_well](http://wiki.openstreetmap.org/wiki/Tag:man_made=water_well)).

**id:** when you will make a new POI on OSM, the database will automatically generate the id, but right now the id is not already set as tag, you can use it as custom identifier useful to organize your paper form fields, you can fill it with a custom incremental code or everything you think useful for your job.

**inspection\_date:** just put the date of the water well inspection

**location: lat. and lon.:** copy the latitude and longitude degrees from your GPS tracker

**water\_well\_type: (custom)** This Tag is intended to immediately distinguish the water well in two macro categories:



**small\_diameter:** are generally all water wells made by drill, normally they also have the top close by a pump <http://www.fao.org/docrep/X5567E/x5567e04.htm> for more info.



**large\_diameter:** normally are made by digging and have the top open or accessible. normally the water are taken by bucket or similar. Some time the top can be close by a door.



**top\_type: (custom)** This Tag better describe the water well and has 3 preset values:

- close: when it is not possible to put anything inside the well, normally drilled well are closed by a pump.
- open: when it is possible to put a bucket or similar inside the well, normally the large size water well are open.
- can be open: for those, normally large size that are provided of a door to prevent the entry of polluting. Also for this Tag refer to <http://www.fao.org/docrep/X5567E/x5567e04.htm> for more info.

**pump:** specify if there is a pump and if is manual or powered. In note you can explain which energy move the pump (electricity, wind, animals, but not the manual pump). Please refer to <http://wiki.openstreetmap.org/wiki/Key:pump> for more info.

**manual\_pump\_type: (custom)** this tag have 3 preset and one free text options, see following images for examples:



**1. lever\_pump**



**2. flyweel\_pump**



**3. pedal\_pump**

**condition:** this tag describe the general water well maintenance situation and has 3 preset values:

- **good:** should be used for those water wells that looks brand new or very nice and work well
- **fair:** should be used for those water wells that looks used but still working
- **deficient:** should be used for those water well that looks bad, still working or not

Please refer to <http://wiki.openstreetmap.org/wiki/Key:condition> for more info.

**disused:** use this [lifecycle prefix](#) on tags that relate to features that are in a reasonable state of repair but which are currently unused. For features which can only be returned to use with significant repair efforts, use Key:abandoned. Use of disused as a simple tag is now discouraged (for example 'disused=yes'). Please refer to <http://wiki.openstreetmap.org/wiki/Key:disused> for more info.

**abandoned:** [lifecycle prefix](#) can be added to tags that relate to features that have fallen into serious disrepair and which could only be put back into operation with expensive effort. Such features will still have some physical form reflective of their former use visible in the landscape. For features which might be returned to use without significant repair efforts, see Key:disused. Use of abandoned as a simple tag is now discouraged (for example abandoned=yes). Please refer to <http://wiki.openstreetmap.org/wiki/Key:abandoned> for more info.

**access:** are used to describe the legal access for highway=\*s and other facilities including building entrances. Values:

- **yes:** The public has an official, legally-enshrined right of access; i.e., it's a right of way
- **private:** Only with permission of the owner on an individual basis
- **multifamily:** Only members of specific family have legal access
- **permissive:** Open to public until such time as the owner revokes the permission which they are legally allowed to do at any time in the future.

Please refer to <http://wiki.openstreetmap.org/wiki/Key:access> for more info.

**drinking\_water:** indicates whether a feature provides drinking water, respectively whether water is drinkable for humans. Values:

- **yes:** The water is drinkable for humans. There must be objective reasons that allow you to conclude that the water is pure.
- **no:** The water is not drinkable. It is obvious that the water is soiled or contaminated or flows through a circulating pump.

Please refer to [http://wiki.openstreetmap.org/wiki/Key:drinking\\_water](http://wiki.openstreetmap.org/wiki/Key:drinking_water) for more info.

**operator:** Often it's useful to describe that a certain map object is operated by a company, corporation or a person in any way. More info at <http://wiki.openstreetmap.org/wiki/Key:operator>.

**operator\_type:** This tag is used to give more information about the type of operator=\* for a feature.

Recommended Use:

- operator:type=**public:** as opposite to private operator (What is the difference between public and government? Public: operated by a public organization linked to the government. Ex: a public school directed by his own director and management structure)
- operator:type=**private:** A privately owned organization
- operator:type=**government:** A governmental organization. (What is the difference between public and government? Government: directly operated by the local, regional or country government. Ex: a city tax office)
- operator:type=**religious** A religious organisations
- operator:type=**ngo:** Non-governmental organisations
- operator:type=**community:** community-based organisations (CBOs) or informal community run collectives
- operator:type=**consortium:** an association of two or more individuals, companies, organizations or governments

Please refer to <http://wiki.openstreetmap.org/wiki/Key:operator:type> for more info.

**name:** provide details of the name for a feature included in OpenStreetMap. Refer to <http://wiki.openstreetmap.org/wiki/Key:name> for more info.

**source:** The source=\* tag can be used to indicate the source of some information (i.e. meta data) added to OpenStreetMap. This tag could be useful for verification and to assist future editors who may wish to understand the origins of the data they are modifying. It is often preferable to use separate source tags for each of the main tags, for example [source:name=\\*](#), [source:ref=\\*](#), [source:addr=\\*](#) detailing how the information for name, ref and address information was collected. More info at <http://wiki.openstreetmap.org/wiki/Key:source>.

**note:** is used to inform other mappers about non-obvious information about an element, the author's intent when creating it, or hints for further improvement. For more info <http://wiki.openstreetmap.org/wiki/Key:note>

**fixme:** The fixme key allows contributors to mark objects and places that need further attention. These can be in the form of a "note to self" or request for additional mapping resources. <http://wiki.openstreetmap.org/wiki/Key:fixme> for more info.

**photos:** the mappers are strongly encouraged to take at least one photo for any described water well. Photos should be taken close enough to identify if the top of the water well is open or close, and if it is, which type of pump is set on top. Type in the form field the filename of each photo.



useful image (close enough)



useless image (too far away)

The project start in a portion of the Burkina Faso territory, but it can be suited in any place in world. Our intent is to provide a tested workflow for a mapping campaign on the ground. Any mapper can join us in this project with his OSM account.

For mapping you just need GPS tracker, paper forms enough, and camera (better with integrated GPS, also a cheap smartphone with camera and GPS is OK)\*.

Direct inspection of water wells is mandatory for this project, no Bing or any indirect mapping is useful to reach the goal. Even if many useful object can be mapped by geospatial imagery. Please do not map water wells just from Bing.

During the water well mapping campaign, is encouraged to collect othe position and useful infos about buildings around as schools, hospitals, infirmaries, etc. Refer to [http://wiki.openstreetmap.org/wiki/Humanitarian\\_OSM\\_Tags/HDM\\_preset](http://wiki.openstreetmap.org/wiki/Humanitarian_OSM_Tags/HDM_preset) for more info.

This is a reference guide for mappers, made for the water well mapping campaign if you have any doubt, do not hesitate to contact H2OpenMap project at [info@h2openmap.org](mailto:info@h2openmap.org).

\* For the first campaign the mapping tools we use comprehends a cheap waterproof GPS tracker, a waterproof GPS camera that are also protected by sand and shock, and a cheap smartphone if something happen to the GPS tracker or to the camera. West Africa are really sandy place and during a mapping on the ground, for the tools is easy to fall. for more info about, contact us at [info@h2openmap.org](mailto:info@h2openmap.org).