

THE CONCEPT OF UTILIZING WELL CONSTRUCTION TECHNOLOGY ON WAQF LAND FROM THE PERSPECTIVE OF LEGAL CERTAINTY

SADDAM HUSEIN^{1,2,*}, NURUL HUDA³, ROHMAD ADI YULIANTO²,
NOVA MONAYA¹, ABRAHAM YAZDI MARTIN¹, R. DJUNIARSONO¹,
ANI YUMARNI¹, WENI HAWARIYUNI⁴

¹Universitas Djuanda, Bogor, Indonesia

²Universitas Islam As-Syafi'iyah, Jakarta, Indonesia

³Universitas Yarsi, Jakarta, Indonesia

⁴ University of Buraimi, Oman

*Corresponding Author: saddam.husein@unida.ac.id

Abstract

The purpose of this study is to provide legal certainty regarding the use of drilled well technology in waqf land and its licensing procedures. The research method used is normative juridical, with a legislative approach as primary legal material combined with literature studies and conducting research and studies related to legal certainty and procedures for utilizing drilling well technology on waqf land with a background in the study of well waqf and waqf land dispute cases as secondary legal materials. The analysis technique used is a qualitative technique with a deductive narrative to get a systematic and concrete conclusion. The results of the study on the use of technology for constructing drilled wells on waqf land are very helpful for the community in meeting their water needs and from the perspective of legal certainty, it can be done as long as it is carried out by a nazir and obtains permission from the office of religious affairs and the Indonesian waqf agency in advance, with the condition that the purpose of the use is for the public interest, meaning that the water from the well can be used for free by the community or commercialized, the results of the commercialization are given back to the community, especially the poor and destitute, not for personal gain. The procedure for licensing the use of borehole construction technology on waqf land is to add one condition in addition to the provisions listed in the decree of the minister of energy and mineral resources, namely by including the waqf land certificate.

Keywords: Drilling wells, Legal certainty, Utilization of technology, Waqf land.

1. Introduction

Water is a source of life that is inseparable from humans [1]. The ongoing clean water crisis in Indonesia does not only occur during the dry season or drought but also when people are forced to use unclean or even dirty water to meet their consumption needs [2]. That is why much research regarding water purification has been well-documented [3-8]. Even in countries in Africa known as barren areas and have extremely hot climates. The ongoing clean water crisis has claimed a huge number of victims. The solution implemented by the community to the limited or unavailability of water in their area, especially the community living in rural areas, and even some of the community living in urban areas also utilize groundwater sources by making drilled wells [9]. There are several reasons why people use drilled wells as a water source [10]. Secondly the location is in the middle of the community because the water source comes directly from tap water [11]. The third cost incurred is quite affordable and with long-term use.

The data on drilled wells at the ministry of public works and public housing until December 2023 amounted to 6902 points spread throughout Indonesia. The problem is what if the drilled well is built on waqf land with the use of technology either intentionally or as an effect of the country's development needs. What is the legal certainty of the use of this development technology [12]. Considering that in the deed of waqf pledge, the person who owns the waqf (*wakif*) does not state that the waqf land is for making a drilled well, whereas the waqf land that has been donated cannot be changed or used other than as stated in the waqf pledge. Even article 67 of the waqf law paragraph 2 states that any person who intentionally changes the designation of waqf assets without permission as referred to in article 44, shall be punished with imprisonment for a maximum of four years and/or a maximum fine of IDR 400,000,000.00 (four hundred million rupiah) [13].

Another problem that has the potential to arise is the control of the drilled well by a nazir or certain individuals who control the physical land of the waqf, especially since the waqf land does not yet have legal force in the form of a waqf land certificate [14]. It was recorded that there were still 204,001 locations that had not been certified in December 2024, the most potential of which was that the drilled wells on the waqf land were commercialized by certain irresponsible individuals or parties for their interests.

There are many cases of waqf disputes that have occurred and have been decided by the courts in Indonesia. Among them is the decision 423/Pdt.G/2023/MS-Sgi dated March 5, 2024 the verdict of which is to sentence the defendant to hand over the dispute object of waqf land of ± 1810.4 to the plaintiff in a good and voluntary manner in an empty condition without any burden/liability and guarantee, and if necessary can be done by force with the assistance of the police, Where the defendant controls the land that has long been used as a community cemetery by dismantling gravestones and planting on it.

Research on the use of technology for making drilled wells on waqf land from the perspective of legal certainty, as far as the author's findings, there has been no similar research before, previous studies were more about donating money for making well waqfs, not discussing legal certainty if the making of the drilled well is not in the waqf pledge deed. However the author also needs to present some literature that can be used as a comparison in this paper, the previous research that is used as a comparison is presented in the following Table 1.

Table 1. Previous research.

No.	Title	Ref.
1.	Management of land endowment management of jami' darussalam mosque, jatipayak village, modo district, lamongan regency to improve the community's economy.	[15]
2.	Waqf well program as a solution to the clean water crisis in African countries	[16]
3.	The role of the tendavisi indonesia foundation in overcoming the water crisis through the well endowment program in situpitahunan village, baleendah village	[17]

Based on our previous studies [18, 19]. The purpose of this study is to determine, analyse, and provide legal certainty for the construction of drilled wells on waqf land by utilizing technology and licensing procedures. The novelty of this study from previous studies is conducting a legal review related to the utilization of technology for the construction of drilled wells on waqf land and its licensing procedures.

2. Literature Review

Based on the literature search conducted by the author, the technological process for making drilled wells was found, which is presented in the following Fig. 1. The process of making a drilled well for human water needs goes through the following stages:

- (i) Geological and hydrological analysis are used to select the best location.
- (ii) Selecting a drilling method, select a drilling technique based on the well's needs and geology.
- (iii) Pre-drilling, preparing and moving drilling equipment, drilling first to collect rock and soil samples.
- (iv) Main drilling, to reach the target groundwater layer or water source, more drilling are done using a drilling rig.
- (v) Casing installation, installing the casing pipe keeps the well wall from collapsing and keeps debris from clogging the well.
- (vi) Well testing, water flow, water quality, and production capacity of the well are all evaluated during well testing.
- (vii) Pump installation, the process of installing a water pump to remove water from the well.
- (viii) Well completion, complete the construction of the well, including equipping and cementing the well.
- (ix) Well maintenance, consistent maintenance and care to ensure optimal performance.
- (x) Reporting, prepare a final report with information about the well construction procedure, testing findings, and maintenance recommendations.

Next, in making a drilled well the following materials are needed, drilling machine, drill pipe, drill bit, stabilizer, mud pump, casing pipe, water pump, and tongs.

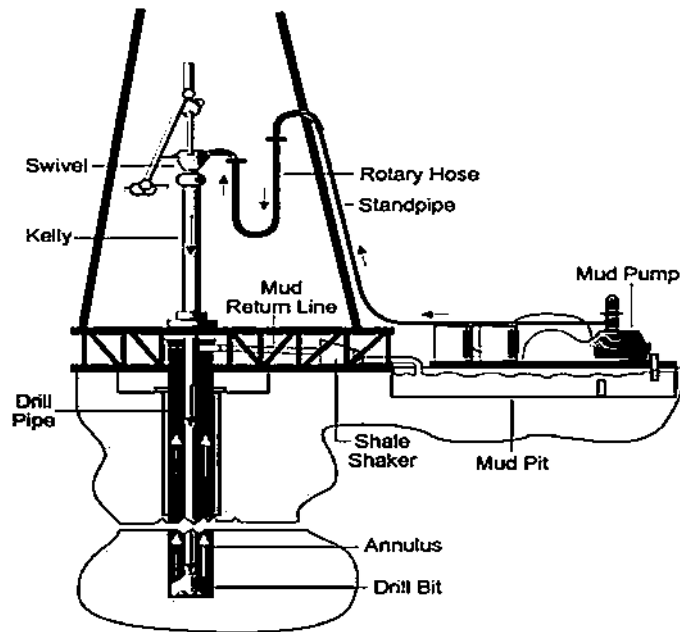


Fig. 1. Flowchart of drilling well technology.

This data was adopted from <https://workshop.co.id/sumur-bor/>, taken on July 2024.

3. Method

The research method used is normative juridical with a legislative approach as primary legal material combined with literature studies and conducting research and studies related to the legal certainty of making drilled wells on waqf land with the use of technology with a background in studies of well waqf and waqf land dispute cases as secondary legal material [20]. The analysis technique used is a qualitative technique with deductive narrative, namely a narrative from general to specific to obtain systematic and concrete conclusions.

4. Results and Discussion

4.1. Legal analysis of the development of waqf allocations

Waqf is a legal act of a wakif to separate and/or hand over part of his assets to be used forever or for a certain period according to his interests for worship and/or public welfare following sharia, as stated in article 1 number 1 of law number 41 of 2004 concerning waqf. As explained in article 6 of law 41 of 2004 concerning waqf, the requirements for a valid waqf must meet the following elements *wakif*, *nazir*, waqf assets, waqf pledge, designation of waqf Assets, and waqf period.

The focus of this article is related to the use of well drilling technology on waqf land for the purposes desired by the waqif and this is the full right of the waqif, the allocation of the waqf property can later be stated in the waqf oath deed during the implementation of the oath before the waqf oath assembly attended by the nazir, *wakif*, and at least two witnesses led by an authorized official, in this case, the head of the religious affairs office who functions as the official registrar of the waqf oath deed (PPAIW). The ministry of religion's waqf fiqh book explains what is meant

by khairi waqf, or waqf that is only used for social purposes, universal goodness, or religious. While expert waqf is intended for one or more people, either the waqif's family or not. This type of waqf is also known as dzurri waqf [21].

In principle, waqf property is prohibited from being used as collateral, confiscated, donated, sold, inherited, exchanged, or transferred in the form of other rights transfers. Exceptions are made if the waqf property given is used for the benefit of the general public and does not violate sharia or the general spatial plan, as determined by the provisions of the relevant laws and regulations. This exception can only be made after obtaining written permission from the minister of religion with the approval of the Indonesian waqf board. Only with written approval from the office of Religious affairs and advice from the ulema council for reasons that have been determined. As explained in article 225 of presidential instruction number 1 of 1991 concerning the compilation of Islamic law. First, because it is no longer following the purpose of waqf as declared by the waqif, or second, because of the public interest [22].

Article 36 of the waqf law then states that if the designation of a waqf asset is changed or exchanged, the nazir is required to re-register the asset with the Indonesian waqf board and the authorized agency through PPAIW. This must be done following the relevant provisions in the waqf asset registration procedure.

Regarding the use of technology to make a drilled well on waqf land that is not in the waqf pledge deed or is not in the purpose of the waqf, it can be done as long as it obtains permission from the office of religious affairs and the Indonesian waqf agency. Thus, legal certainty is achieved first, with the condition that the purpose of the drilled well is for the public interest, meaning that the water from the well can be used for free by the community or commercialized, the results of the commercialization are given back to the community, especially the poor and destitute community because this is included in the category of waqf development not for personal interests because if it is commercialized for personal interests, for example, it is traded, then the sale and purchase is invalid and even considered haram because it is trading something that is not his right or is called a sale and purchase whose ownership is unclear [23].

4.2. Procedures for permitting drilling wells on waqf land

Decree of the minister of energy and mineral resources number 291.K/GL.01/MEM.G/2023 concerning standards for implementing groundwater use approvals states that both government agencies, legal entities, social institutions, and communities need to take care of groundwater use permits from drilled or dug wells. Regarding how to apply for a permit, anyone can apply for groundwater utilization, applicants can be individuals, community organizations, government agencies, businesses, or social institutions. Through the head of the geological agency, the application is submitted to the minister of energy and mineral resources [24]. The application form contains many items:

- (i) Identity of the applicant
- (ii) Address of the location of the groundwater exploration drilling/excavation
- (iii) Coordination of the planned point of the groundwater exploration drilling/excavation (decimal degree)
- (iv) Period of use of the requested groundwater
- (v) Description of which well is drilled

In addition, the applicant must provide proof of ownership or control over the land. The documentation can be in the form of a lease agreement, certificate of ownership, certificate of building use rights, deed of sale and purchase (AJB), or certificate of ownership (SHM). Additional evidence that the land is not used in dispute is a stamped statement letter, environmental permit, permit, and/or documentation, and a statement of the land's ability to make infiltration wells.

A letter of approval for drilling or excavation of groundwater exploration can be issued after verification and review, otherwise, the application can be rejected for the reasons given. If granted, the permit holder is required to make an infiltration well following the regulations of the geological agency, install a water meter on the outlet pipe of the drilled well, and provide access to the head of the centre for groundwater and geology of environmental management and other related agencies so that an inspection can be carried out.

The permit period is granted as long as the groundwater is used to meet daily living needs. The period is as long as it is used for daily needs. Likewise, a permit to use groundwater by individuals for agricultural purposes outside the existing irrigation system is valid as long as it is needed. The validity period of groundwater use for purposes other than those mentioned above is allowed for a maximum of seven years. However, it is possible to request an extension.

The procedure for permitting the use of drilling well technology on waqf land which is the result of findings or innovations from this research is that in addition to the requirements mentioned above, a permit for drilling wells on waqf land must be accompanied by a waqf land certificate, and the applicant is a nazir or if there is no nazir then by the head of the religious affairs office or the head of the Indonesian waqf agency.

Article 68 to article 74 of law number 17 of 2019 concerning water resources provides criminal penalties for any perpetrator who causes damage to water sources and their infrastructure and/or water pollution, whether intentionally or due to negligence. Criminal penalties for perpetrators in this law are subject to minimum and/or maximum sanctions, namely the minimum. For acts regulated in article 68, sanctions are subject to a short prison sentence of 3 (three) years and a maximum of 9 (nine) years, a fine of at least IDR 5,000,000,000.00 (five billion rupiah), and a maximum of IDR 15,000,000,000.00 (fifteen billion rupiah).

5. Conclusion

The use of technology for making drilled wells on waqf land from the perspective of legal certainty can be done as long as it is done by a nazir and obtains permission from the office of religious affairs and the Indonesian waqf agency in advance with the condition that the purpose of the drilled well is for a public interest, meaning that the water from the well can be used for free by the community or commercialized and the results of the commercialization are given back to the community, especially the poor communities, not for personal interests. The procedure for a drilled well permit on waqf land which is a finding or novelty of this study is that in addition to the requirements stated by the decree of the minister of energy and mineral resources for a drilled well permit on waqf land, a certificate of the waqf land is included, and the applicant is by a nazir or the office of religious affairs or the Indonesian waqf agency if there is no nazir.

Acknowledgments

We acknowledged Djuanda Reborn and Chancellor of Universitas Djuanda.

References

1. Wattimena, J.A.Y. (2021). Pemenuhan hak atas air bersih dan sehat, serta hak menggugat masyarakat. *Balobe Law Journal*, 1(1), 1-16.
2. Jatmiko, S.W.; and Chaniago, A. (2024). Analisa bisnis pengolahan sampah menjadi bahan bakar rdf berbasis wakaf produktif di kota Bogor. *Alamiah: Jurnal Muamalah dan Ekonomi Syariah*, 5(02), 57-70.
3. Touri, J. et al. (2021). The comparison of electro dialysis and nanofiltration in nitrate removal from groundwater. *Indonesian Journal of Science and Technology*, 6(1), 17-30.
4. Khelassi-Sefaoui, A.; Khechekhouche, A.; Daouadji, M.Z.-D.; and Idrici, H. (2021). Physico-chemical investigation of wastewater from the Sebdu-Tlemcen textile complex North-West Algeria. *Indonesian Journal of Science and Technology*, 6(2), 361-370.
5. Boutebib, A.B. et al. (2023). Assessment of iron contamination in groundwater of catchment area water. *Indonesian Journal of Science and Technology*, 8(3), 429-438.
6. Mahmud, M. et al. (2023). Step-by-step fabrication of PVDF-TiO₂ hollow fiber membrane and its application desalination of wetland saline water via pervaporation. *Indonesian Journal of Science and Technology*, 8(3), 499-516.
7. Amin, M.H.; Sajak, A.A.B.; Jaafar, J.; Husin, H.S.; and Mohamad, S. (2022). Real time water quality monitoring system for smart city in Malaysia. *ASEAN Journal of Science and Engineering*, 2(1), 47-64.
8. Sheng, D.P.W.; Bilad, M.R.; and Shamsuddin, N. (2023). Assessment and optimization of coagulation process in water treatment plant: A review. *ASEAN Journal of Science and Engineering*, 3(1), 79-100.
9. Nawwaf, N.; and Saifulloh, K. (2023). Peran wakaf sumur dalam meningkatkan kesejahteraan masyarakat pamekasan (studi kasus program Yayasan Cahaya Ummat). *Jurnal Ilmiah Ekonomi Islam*, 9(2), 1950-1957.
10. Manurung, M.; Ivansyah, O.; and Nurhasanah (2017). Analisis kualitas air sumur bor di Pontianak setelah proses penjernihan dengan metode aerasi, sedimentasi dan filtrasi. *Prisma Fisika*, 5(1), 45-50.
11. Mahmud, M.; Womtami, R.; Husnan, R.; and Saleh, K. (2023). Evaluasi parameter fisik, kimia dan mikrobiologi air sumur bor sebagai sumber air bersih di kompleks perumahan solaria kota Gorontalo. *Jurnal Reka Lingkungan*, 11(1), 25-36.
12. Pertiwi, C.; Lestari, C.; and Julia, J. (2024). Wakaf sumur yayasan aksi cepat tanggap (ACT): Analisis kontributif wakaf sumur dalam mengatasi krisis air bersih di kecamatan gandum. *Jurnal I-Philanthropy: A Research Journal on Management of Zakat and Waqf*, 4(1), 1-14.
13. Harahap, M.Y. (2023). Penyelesaian kasus sengketa wakaf (analisis undang-undang nomor 41 tahun 2004 tentang wakaf). *Rayah Al-Islam*, 7(1), 140-151.

14. Magfirah, N.I.; Ilyas, M.; and Erlina, E. (2023). Kedudukan wakaf atas tanah wakaf tanpa sertifikat di kabupaten Bulukumba. Shautuna: *Jurnal Ilmiah Mahasiswa Perbandingan Mazhab*, 4(2), 600-615.
15. Oktafia, R. (2021). Manajemen pengelolaan wakaf tanah masjid jami' darussalam desa Jatipayak kecamatan Modo kabupaten Lamongan untuk meningkatkan perekonomian masyarakat. *Jurnal Tabarru': Islamic Banking and Finance*, 4(2), 380-393.
16. Kaslam, K.; and Mubarak, M. (2021). Program sumur wakaf sebagai solusi krisis air bersih di negara-negara Afrika. Sulesana: *Jurnal Wawasan Keislaman*, 15(1), 1-18.
17. Fauziah, R.D. (2021). Peran yayasan tendavisi Indonesia dalam mengatasi krisis air melalui program wakaf sumur di kampung Sitisipatahunan desa Baleendah. *Comm-Edu (Community Education Journal)*, 4(2), 69-75.
18. Husein, S. (2021). Pengembangan model produktivitas tanah wakaf untuk pembangunan gedung komersial berbasis build operate transfer (BOT). *Jurnal Ilmiah Living Law*, 13(1), 11-19.
19. Roestamy, M.; and Fulazzaky, M. A. (2022). A review of the water resources management for the Brantas River basin: challenges in the transition to an integrated water resources management. *Environment, Development and Sustainability*, 24(10), 11514-11529.
20. Zainuddin, M.; and Karina, A. D. (2023). Penggunaan metode yuridis normatif dalam membuktikan kebenaran pada penelitian hukum. *Smart Law Journal*, 2(2), 114-123.
21. Wantu, F. (2012). Mewujudkan kepastian hukum, keadilan dan kemanfaatan dalam putusan hakim di pengadilan perdata. *Jurnal Dinamika Hukum*, 12(3), 479-489.
22. Ramli, M.; Setiyawan, D.; and Rahmad, N. (2022). Kedudukan ruislagh dalam investasi tanah wakaf perspektif maqasid syari'ah. *Jatijajar Law Review*, 1(1), 47-54.
23. Arifin, M.; and Abdurrahman, A. (2018). Perubahan peruntukan tanah wakaf di luar yang diikrarkan. *Jurnal Ilmiah Mahasiswa Bidang Hukum Keperdataan*, 2(2), 308-319.
24. Harmila, S.; Djumara, N.; and Pratiwi, A.D.R. (2021). Strategi implementasi kebijakan penyelenggaraan konservasi air tanah di kota Bandung. *Jurnal Media Administrasi Terapan*, 2(1), 53-60.