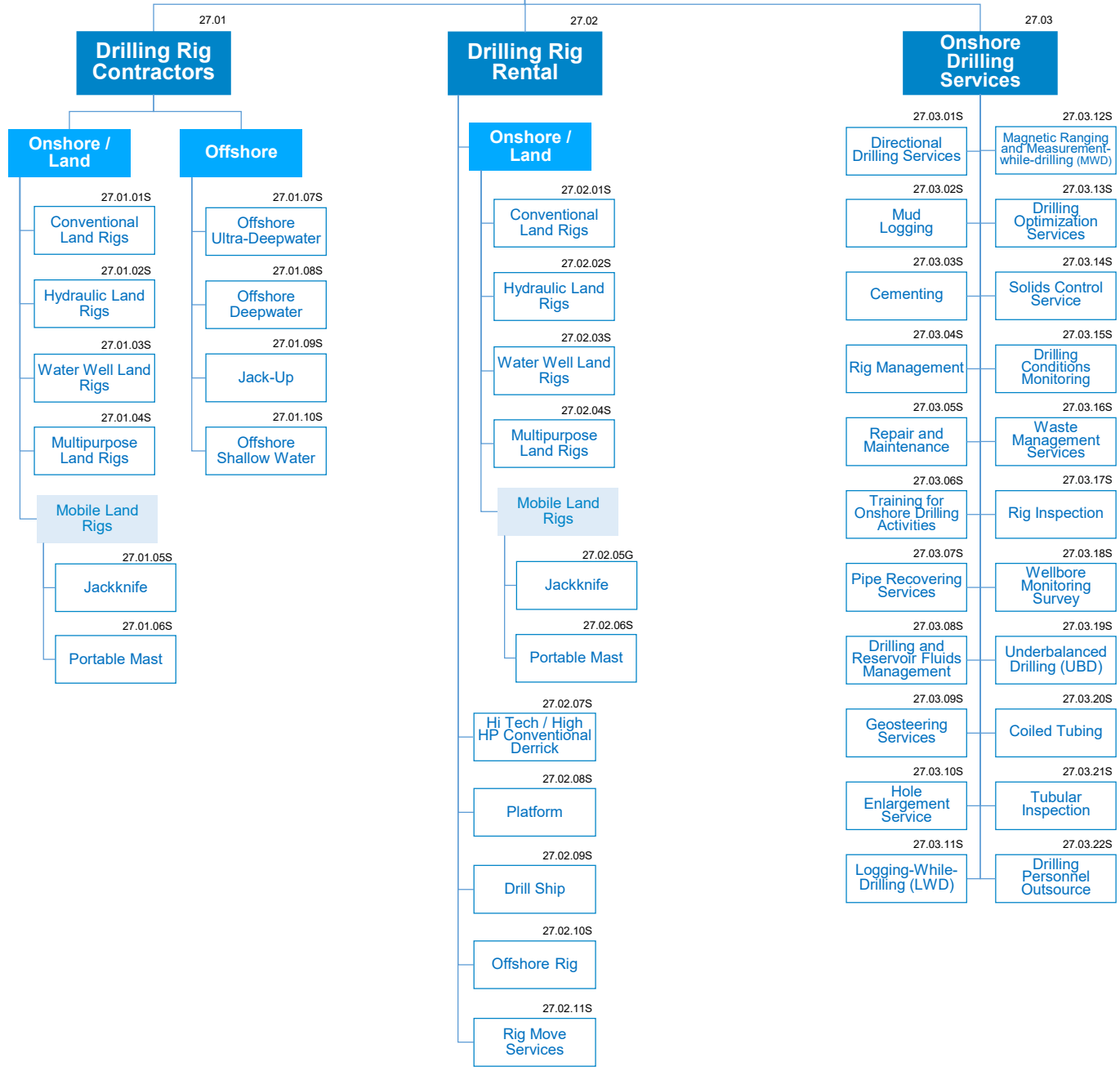


Drilling Services



Drilling Services

This category group encompasses services related to drilling activities. These span from complete drilling contracting to more specific services and rental of rig systems.

MAIN RATIONALES BEHIND THE STANDARD CATEGORIZATION

Drilling Rig Contractors

- This family includes all complete drilling services provided by specialized contractors for both onshore and offshore locations.
- “Conventional Land Rigs” cannot be moved as a whole unit and are typically used in the petroleum industry.
- “Mobile Land Rigs” are drilling systems that are mounted on wheeled trucks and can be classified in “Jackknife” and “Portable Mast” according to the mast structure.
- “Hydraulic Land Rigs” refers to drilling systems with special hydraulic features such as self-erecting telescopic mast made from a single powerful hydraulic cylinder and the built-in integrated hydraulic top drive. This category includes also more advanced generations of fully automated drilling rigs (e.g. Advanced Hydraulic Electrical Automated Driller).

Drilling Rig Rental

- This family includes rental expenses of complete rig systems. Such practice is reportedly more common for onshore as offshore usually require more specific skills and expertise to install and operate the equipment.
- “Multipurpose Land Rigs” can be used across a wide range of water well, mineral, geotechnical and GHP drilling projects. This category does not include rigs specifically designed only for Water Well drilling already listed as “Water Well Land Rigs” (27.01.03S).
- “Hi Tech / High HP Conventional Derrick” refers to the conventional Derrick operating under a high pressure or incorporates high technical systems.
- “DrillShip” is a vessel designed for use in exploratory offshore drilling of new oil and gas wells or for scientific drilling purposes.

Onshore Drilling Services

- This family includes all support services for drilling activities for onshore.
- “Directional Drilling Services” refers to professional manpower and technologies to provide the trajectory control needed to drill the well correctly, the high-quality hole required to successfully run and cement casing, and the precise well placement to optimize production and maximize recovery. This category includes also MDW/LDW-motor rentals.
- “Cementing” includes both primary (fluid movement restricting & casing bonding) and remedial cementing (squeeze & plug cementing)
- “Pipe Recovering Services” Includes recover by both “Fishing” or by “Cutting techniques” when a tool or pipe stick inside the hole.
- “Fracturing” Service can be found in Group 26 (Reservoir Management) in the “Stimulation” Family
- “Repair and Maintenance” includes the service of refurbishing of drills
- “Rig Management” Also takes into account the operation services of a rig
- “Mud Logging” Includes Drilling Mud Engineering and Services.
- “Drilling Personnel Outsource” refers to the rental of manpower to perform the drilling operations.