



## OIL AND GAS WELL OPERATING EQUIPMENT

Saparov Berdibay Bekbauliyeovich

candidate of technical sciences, associate professor

Kannazarov Ilyas Sagiydullaevich

A student of mechanical engineering technology,  
engineering production equipment and management

Nukus under Navoi State University of Mining and

Technologies Mining Institute

<https://doi.org/10.5281/zenodo.8388630>

**Annotation:** Equipment for oil and gas extraction in the field, equipment for using wells using the faw ora method, equipment used for extracting oil from wells using the gaslift method, pump equipment and types for using oil piles, measuring instruments and equipment necessary for conducting research in mines , equipment for repairing oil and gas wells, equipment for impacting oil and gas formations, equipment used in water and gas drilling, equipment for hydraulic fracturing of formations, equipment for collecting and transferring oil and gas. information is provided.

**Key word:** Oil, gas, equipment, extraction, industry, well, debit, drilling.

### Introduction

In the oil and gas industry, well construction is a complete drilling operation assigned to the department. In addition, a search engine in a number of districts drilling is carried out by exploration expeditions. Drilling works management - production enterprise, production operates within the Union border. The head of the union supervises the work of the drilling department controls. Prospective plans for drilling operations departments and one year reviews and approves assignments and drill department compliance ensures and cooperates with the independent development of the economy and supports company initiatives. Order of the drilling Association works on it planning and management of the economic management of the enterprise organization of production, improvement of production economy strengthening the technical and economic indicators of orientation and production works included. Increase labor efficiency in the enterprise, material and effective use of financial resources plays a big role and drilling related to the financing of their work in the new order. The drilling department deals with the independent solution of operational, technical and technological issues full use of output power, production efficiency potential possibilities of strengthening and material and technical means applies measures of use.

### Material and methods

In the oil and gas production industry, the well structure is intended for various purposes and they are divided into structural, exploration, exploration, exploitation, drive and special types. Oil, gas or gas condensate extraction is carried out through production wells; water, gas, and steam are pumped into the layer through drive wells. In the process of operating a mine, according to a number of reasons, the production wells are transferred to the driving wells or used in reverse. During the monitoring of the use of the mine from specially designed wells in the mines, the properties of the structure, the collector, the influence of the heat in the layer, and the are determined. Use wells are the most important part of the facility. The sum total of the mine provides a fund for the operation of the well, the cost of which is 70-80% of the total of the technical equipment of the modern mine. The

profile of such a well is different depending on the demand for well drilling technology and the method of use. In order to accelerate oil and gas production, wells are drilled horizontally into the productive layer. Although the technology of drilling horizontal wells is complex and expensive, it is economically efficient due to the high rate of extraction. Well profiles crosses the productive layer. The profile differs in that there is no oblique-straight-line plot. The profile does not have an oblique line section. The profiles of the use wells shown in each scheme are equipped based on the specifics of the use of the wells. To improve the drainage of the productive layer, several wells are drilled from the vertical part of the well to the layer, such wells are called multi-bottom (or shaft) wells.

### Results

Therefore, the main issues providing new scientific innovations, techniques and best practices to the drilling department, at the expense of improving labor, material and production efficiency economical use of financial resources, capital funds and increasing their efficiency, reducing the cost of drilling operations and shortening the construction period of wells, production and scientific management implementation of organization, training of qualified personnel and from them economic use, housing of employees and their family members improvement of cultural and household conditions. The drilling crew is the main production team and is diverse unites employees and workers by qualification, profession and task and carries out concrete works on the construction of the well. The name of the work to be performed and the organization of labor, the purpose of the drilling work, depends on the depth and construction of the well. Drilling of the cycle of organizing the brigade and forming its structural image actually affect its continuity and structure. Continuous drilling in three shifts for drilling deep wells work is organized, each shift lasts 8 hours. To the drilling brigade covering four shifts or times, providing round-the-clock operation. The drill crew is headed by a drill master. Diploma for this position an expert is appointed. Four time rules for drilling includes four drillers and their three assistants. A driller and necessary supplies to keep things running smoothly ensuring the implementation of well

construction in accordance with the project, execution; ensuring the safety of the work process and the environment is personally responsible for the implementation of protective measures. Brigade receiving drilling equipment from installers when moving to a new location does. An orderly scheme of the use well and its equipment. The well consists of three main sections - surface, shaft and filter, and each of them is equipped with appropriate equipment: ridge head, guide, conductor, operating ridge, filter, the lowest part of the well is called the bottom. The well is equipped with a packer or sometimes a shear-valve. The shaft part of the production well is provided with structural reinforcement pipes, and the rear part of the well is cemented. Surface equipment of utility wells. The reinforcement ridge above the well is connected, that is, other equipment of the well is attached, which is called the ridge head. The ridge head connects all the reinforcement ridges of the well into a single system. It accepts the weight of the wire and transfers all loads to the conductor. It provides insulation and hermeticity of the space between the ridges, and at the same time allows to control the condition of the shaft part of the well and the execution of the necessary technological process. The ridge head acts as a platform for the installation of equipment to be lowered into the well. During the drilling of the well, a blowout preventer is installed on it, and after the drilling is finished, it is dismantled will be done.

### Discussion

The ridge head is structural - it has several interconnected elements, which include a reel load, a finger (kristovina), strong ridges. The number of these elements depends on the number of reinforcement rows in the well. The conditions of using the ridge head are quite complicated: the load given by the weight of the reinforcing ridge exceeds several hundred kilonewtons in deep wells. In addition, the ridge head receives pressure from the contact zone. H<sub>2</sub>S, CO<sub>2</sub> or strongly mineralized waters in the formation liquid or gas expose the ridge head to corrosion. When heat carriers are driven into deep wells, the shafts and ridge heads heat up to 150-250 °C. The head of the ridge connecting the two ridges is made of a cage and is screwed to the reinforcement pipes. The inner surface of the cocoon is conical, and a plug is placed on it, which maintains the tube for strengthening the inner ridge. The flange is coiled into the body, fitted to the pipe and usually welded to it. The space between the pipes is separated by compression. A lock is installed at the head of the ridge, which provides access from the back of the hole. The height of such a ridge head is about one meter. Depending on the diameter of the reinforcement pipes, the mass will be 500-550 kg. Wells with a depth of 1500-2000 meters and a pressure of up to 25 MPa are equipped with such a ridge head. Ridge heads are prepared for equipping wells with three, four and five ridges with a large number of reinforcement ridges. The principle and constructive schemes of such ridge heads are similar to the above. The depth of the five-ridge head (up to 5000 meters) is designed for pressure up to 70 MPa, its vertical height is 3 meters. The main nodes 1, 8, 9, 10, 11 are for reinforcement pipes with sizes from 168 mm to 502 mm, 2, 4, 5, 7 pin hangers and 3 taps. The yield strength of steel for casings is 5.0-5.5 MPa, the relative transmission is 14-15% and the impact viscosity is up to 40 mNm/m<sup>2</sup>. Low-alloy steels of type 35 XML are used for the production of ridge heads used in severe conditions. Stamped or hammered flanges or throats are made directly from 35 XM, 40 X steels. Incompatibility of the sizes of the connectors and elements of the head of the chain can cause accidents. According to the standard, ridge heads designed for working pressure of 14, 21, 31, 70, 105 MPa are produced.

### Conclusion

Thus, for the purposeful use of oil and gas extraction wells and the optimal use of the technical capabilities of their equipment, it is required that the operational indicators of the technological process and the technical capabilities of the equipment match. Then we will prevent all kinds of unpleasant factors. Planning and management of the economic management of the enterprise organization of production, improvement of production economy strengthening the technical and economic indicators of orientation and production works included. Increase labor efficiency in the enterprise, material and effective use of financial resources plays a big role and drilling related to the financing of their work in the new order. A driller and necessary supplies to keep things running smoothly ensuring the implementation of well construction in accordance with the project, execution; ensuring the safety of the work process and the environment personally respond to the implementation of protective measures information about. Loading and unloading procedures for members of the drilling crew it is mainly large in completing and lowering the reinforcement ridge into the well task loaded. The members of the drilling crew are together here it is necessary to work hard, to know one's obligations well, to apply one's knowledge to work will be. From the inspection and instructions of the Special Commission on Drilling, did not pass production training, testing and knowledge verification workers are not allowed. During the instruction,

the drilling company and on the safety of equipment related to the performance of certain types of work general issues are indicated for special questions.

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